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THE

AMERICAN FARMER,

CONTAINING

ORIGINAL ESSAYS AND SELECTIONS

ON

AGRICULTURE, HORTICULTURE,

RURAL AND DOMESTIC ECONOMY,

AND

INTERNAL IMPROVEMENTS:

WITH

ILLUSTRATIVE ENGRAVINGS AND THE PRICES OF COUNTRY PRODUCE.

JOHN S. SKINNER, EDITOR.

"O fortunatos nimium sua si bona norint
"Agricolas."..........................VIRG.

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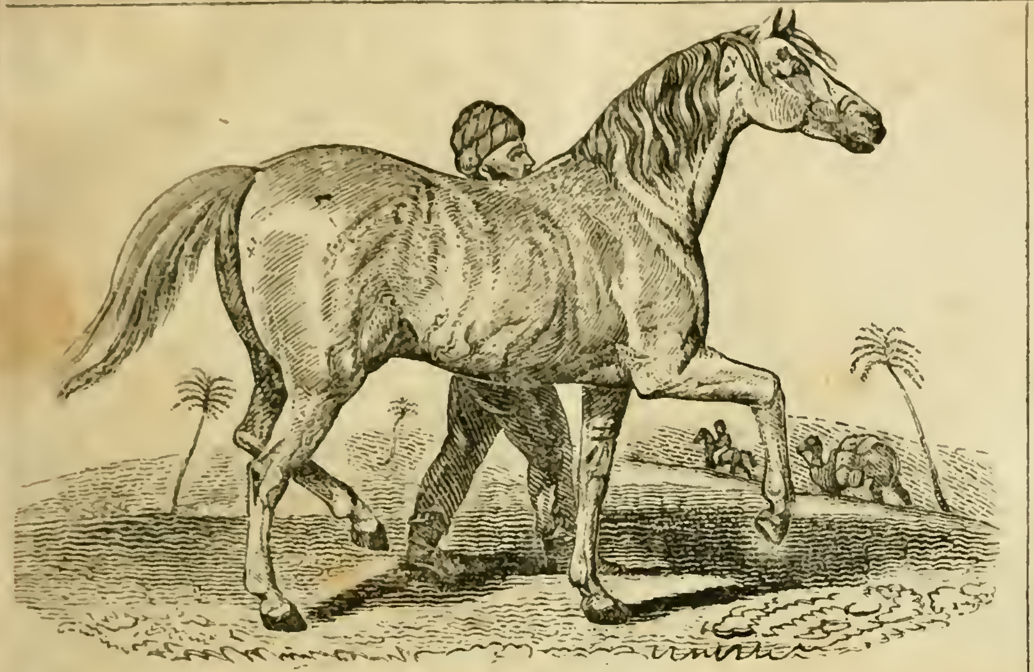

THE WELLESLEY ARABIAN.

The present writer, having seen this fine horse, can vouch for the truth of Mr. Marshall's drawing. This horse, in figure, bearing considerable resemblance to the larger war-horse of Europe, although possessing the delicate skin and various other attributes of the south-eastern courser, it may be conjectured, was the produce of some country bordering upon Arabia, where, as in England, the Arabian or Barbary horse, in process of time, acquires an increase of size and fullness of form, together with a considerable expansion of the hoofs. This is no doubt the effect of lower and more moist grounds, and more succulent food than can be found in the deserts, where the dryness and purity of the air and soil compress the animal body, impart a superior firmness and elasticity to the tendinous and fibrous system, allowing greater powers in a smaller compass of substance, and exalting the tone and vigour of the animal spirits. Thence horses are chosen from the deserts for their fleetness and courage, and those from the mountainous regions are preferred as coursers. A few of the produce of the Wellesley Arabian were trained, but not with sufficient success to raise his reputation as a racing stallion.

It is a curious physico-zoological fact, that the horse was a genus formerly unknown to that vast portion of the globe, the American continent and the islands, and that the horse found no path through which to migrate thither, until he was imported by the Spaniards after the subduction of those countries. The breed soon multiplied far beyond human need, on the rich and productive soils of those almost unlimited regions, as well as that of horned cattle, which had been simultaneously imported. In consequence, the animals ran wild, and in the course of several centuries, have had such a multitudinous increase, as to have lost all vestiges of private property. The accounts of travellers in South America are almost incredible, as to the innumerable herds which they saw, and the frequent danger of being trodden under foot by them. Herds of wild horses are also found in the vast Tartarian regions, from the East to the borders of Russia. The native horse of East India is said to be small, and unendowed with the generous qualities of the courser, supplies of which latter, however, are constantly passing into that country.

Importations of the Southern horse have taken place upon the continent of Europe, during many centuries, for the purpose of improving the native breed, as war, carriage, and road horses. In England, such imports had not so early a commencement, at least from the Levant, most of the breeding stock for the purpose of improvement, being purchased on the opposite continent: but about the period of the reign of Elizabeth, when horse racing had already attracted considerable attention, both in England and Scotland, horses began to be imported from the East, for that peculiar purpose, as well as for the general one of an improvement of the native breeds. At first, it is probable that pedigree and purity of blood were not objects of such high consideration as they have since been; but that any well-shaped and blood-like nag; with good action, served the purpose either of the breeding stud or the course. Turks, Barbs, Spaniards, Arabians, Egyptians, and Persians, were imported, without any particular preference, nor had the Arabian horse, in those days, acquired that high distinction which they have enjoyed since the commencement of the last century. The first James, our first sporting monarch also, purchased of a Mr. Markham, a merchant, an Arabian horse, at the very considerable price of five hundred pounds. This horse obtained no reputation, being, it seems, quite unable to race, and the horse coursers of that day being probably aware that such might be no reasonable objection. The ill success of this horse brought Arabians into such disrepute, that we read of few in the scanty annals of the turf, until the reign of Queen Anne, the last of the Stuarts, and of our horse-racing sovereigns.

Early in the reign of Anne, and which forms an epoch in turf history, the famous *Darley Arabian* was imported. He was sent from Aleppo by Mr. Darley, a merchant there settled, who procured him through his connections, from the Arabian deserts; and he is one of those few horses, on the purity of the blood of which we can have a certain reliance. Hence the consequence to a turf breeder, of attention to the portrait of this horse, which, however imperfect in a refined or scientific view, doubtless represents a likeness of the animal, and a sufficiently correct view of his proportions. That he was the sire of that racer of deathless fame, *Flying Childers*, and that his blood has since invariably proved the most valuable for the stud, form the best evidence of its purity, and that the land in which he was bred is the native soil of the genuine courser. The Leedes Arabian was cotemporary with the Darley, and it is sufficient for his fame as a stallion to say, that he was the sire of *Old Leedes*.

The great success of Mr. Darley with his Arabian, turned the current of fashionable opinion among our English sportsmen, so much in favour of the horses of that country, that it became a common inducement to style all horses imported from the Levant, *Arabians*, whether or not they might have been really such, or *Persians*, *Syrians*, *Egyptians*, *Turks*, or *Barbs*. This has occasioned notable confusion and uncertainty, but it has been experienced, that the horses of all those countries are endowed with the properties of the race-horse in certain degrees, and the blood of our English thorough bred horse is derived from a mixture of all those, although doubtless the blood of the Arabian and Barb predominates. The importation of these southern horses into Europe has proceeded as formerly, to the present time; and great numbers have been brought to this country during the present reign. The late Emperor greatly promoted their introduction into France, and the German Princes continue to breed from them; but of late years a decided preference has been manifested upon the continent, in favour of the English thorough bred horse. It is related, on the authority of a certain Prussian Count, that a German Prince having, with the utmost care and expense, raised a most valuable breed of horses from a son of that well known English racer, *Morwick Ball*, it was one of the first *imperial* acts of Napoleon, to honour the proprietor with a military order to have the whole of them marched to France, for his imperial majesty's use, which was promptly executed. On the same authority it is stated, that about thirty years since, an Arabian horse was obtained in Germany, probably by the way of Turkey and Hungary, which proved superior, for the beauty, strength, and worth of the stock he produced, to any which had been before known in that country. The name of this famous stallion was *Turkmainatti*—a name in equal estimation in Germany, with that of the Godolphin Arabian in England. The valuable stock of this horse has spread over the country, and young *Turkmainatti* at present ably supports the honours of his family.

The Arabians of the desert have always been breeders of horses for sale, but can scarcely be induced to part with their mares at any price. They have three breeds, or varieties, the inferior of which are those brought to market at a low price, and which have been most extensively distributed in foreign countries. There is no reason to suspect any specific difference in these breeds, the whole consisting probably in accidental superiority or inferiority of form, of which the Arabians, from the skill and practice of so many ages, derived from father to son, may be presumed consummate judges. No people on earth can come in competition with them, for their solicitude and care in respect to the pedigrees of their horses, which *essentially* exceed even that, in the same case, bestowed upon monarchs and royal families. The performance of the marriage ceremony of consummation between an Arabian horse and mare of the superior or noble blood, must be first of all publicly announced, that the necessary witnesses, men of the first rank in the country, may be present to attest the act. The same ceremony is repeated at the birth of the foal; and there are numbers of undoubtedly authentic pedigrees, upwards of five hundred years old. That of the Darley Arabian was said to be one of the most ancient.

Horses are the chief stock and property of the *Bedouin*, or wandering Arab tribes, who use them in their plundering expeditions, and in the chase, in which most extraordinary relations have been made of the vast speed and continuance of these horses, and of the little sustenance which they have required during the performance. As oats with us, barley is the horse-corn of the Arabians, with a little annual soiling of spring grass No where on earth is the horse treated with so great consideration, or, as it might be expressed, fellow-feeling, as in Arabia; and as a consequence, no horse equals the Arabian in kindness and affection to human nature, and in the approach to rationality. The Arab, his wife and children, his mare and foal, repose together under the same roof, and upon the same bed The social and affectionate interchange often happens, that the foal is resting upon the bosom of the wife, and the young children sleeping upon the neck and body of the mare! nor is there the least apprehension that the gentle and docile animal should overlay or injure her charge. The Arabs do not beat and abuse their horses like the two-legged brutes of polished Europe, but discourse and reason with them, allowing them an equal share with themselves of all the necessaries of life; and the event demonstrates their plan, as more just and rational; far more successful than ours

Nevertheless the Arab, so kind and considerate to his horse generally, and even transported with a boundless affection for him, exhibits that anomaly of conduct, which is a common and prominent infirmity in human nature. The training and trial of the horse, and indeed the system of horsemanship of the Arabs, are most severe, and even irrational and cruel, perfectly fitted for the approbation of such sophists as *Chateaubriant*. As an example: their mode of trial for a maiden horse of the highest form, is to ride him during the heat of their African sun, ninety miles over the burning sands and stones of the desert, without resting, or drawing drop or bit! and at the end of that moderate stage, to plunge him up to the chest in water! If he will then immediately eat his corn, his blood is genuine! The Arabian horse is not accustomed to trot, but to walk, canter, and gallop. He is ridden with a sharp bit, which in checking with a sudden or heavy hand, fills his mouth with blood, until it becomes thoroughly callous and insensible; and the eastern custom of suddenly stopping him in his full career, throws such a weight upon his haunches, as either to break him down at once, or at a very early age.

AGRICULTURE.

(From the New York Farmer.)

ON THE IMPROVEMENT OF PASTURES.

By J. Buel, Esq., of Albany.

I shall consider them under the two following heads:

1 Those in which the plough is altogether excluded, which may be called *permanent pastures*—and,

2. Those which intervene in alternate husbandry, and which may be denominated *temporary*.

The first comprises lands which are too stony, too wet, or too hilly, for tillage, and sometimes river alluvians. The latter are less frequently depastured here than in Great Britain. *There* they are considered necessary to *fatten*, while the hilly uplands are appropriated to *rear* and to *feed* neat cattle Their superior value with us, for hay, in situations accessible to large towns, has generally confined pasturage upon them to the aftermath.

The object in attempting to improve pasture grounds, is to increase the quantity of nutritious herbage, and to obtain a constant succession during the season, for the production of meat and milk. The artificial means of effecting this, are, a judicious selection of grass-seeds, manuring, draining, keeping the ground in order, and the extirpation of useless and injurious plants.

1 The advantages of old pasture grounds are very highly valued in Great Britain. They contain a greater variety of grasses, and yield a much greater quantity of food, than those which have been recently laid down. The feed is believed to be also more nutritious, as the sod is found to abound in the finer native grasses, which, on account of the little product they yield in hay, are not so commonly sown as those which afford bulkier products. Grasses do not all grow alike; some start early and afford a good bite in spring; some are more luxuriant at midsummer; and others again afford nutritious herbage in autumn and winter Old pastures contain more or less of each, and consequently give a succession of fresh feed. They are truly perennial. Their value, other circumstances being similar, is in proportion to their fertility; for vegetables, like animals, require food for their development and perfection, and thrive in proportion as this is abundant and nutritious.

When pasture grounds are wet, the first object should be to drain them thoroughly. *Wet* grounds produce coarse grasses, which smother the finer kinds, and become poached by the feet of cattle, till the sod is partially or wholly destroyed. *Moist* grounds, on the contrary, produce the greatest variety and most nutritious quality of grasses.

The extirpation of bushes, thistles, dock, and other useless plants, although but seldom or partially attended to, will well repay the labour in the increased quantity of feed, to say nothing of the appearance of neatness which it gives to grounds. By this, I do not mean to exclude trees, either single, in clumps, or in belts upon the borders. These afford shade, shelter, and fuel, without materially injuring the pasture. Where the common locust is exempt from the depredations of the worm, it may be raised in this way with great profit. I have been much pleased with the attention which has been paid to this subject in Pennsylvania, and in the southern parts of this state. Belts of forest trees are peculiarly serviceable in protecting winter crops from the severity of cold

Manuring pasture grounds, otherwise than by the droppings of cattle that are fed upon them, is a practice that has few or no followers among us; and yet it might be done with as much advantage here as in other countries. But for this purpose, I would not recommend cattle dung, but road alluvian, swamp earth, and composts. The best and cheapest top-dressing for pastures as well as meadows that I am acquainted with, with the exception of plaster of Paris, is what the Scotch call middens, or Lord Meadowbank's compost middens. It is composed of about three parts swamp earth, and one part fresh stable dung, placed in compact alternate layers, to the height of four or five feet, and suffered to remain until incipient fermentation pervades the mass. The swamp earth I speak of, is the black vegetable matter, which has accumulated in bogs and wet grounds, and which is often insoluble, and unfit for the food of plants, until decomposition has been begun by the aid of hot dung, lime, or other extraneous agent. I have made this compost with success, and applied it with profit. It is a cheap method, when the materials are at hand, of trebling or quadrupling manure, for all the purposes of husbandry. It should be applied to grass grounds in autumn.

Scarifying or harrowing pastures in the spring, which are what is termed hide bound, is a good remedy for the evil, and serves to extirpate masses, which are the bane of the finer grasses. Seeds may be scattered previous to this operation with certain advantage. Heavy rollers are also used with benefits, as early as the sole of the grass is solid enough to sustain the weight of cattle. It reduces inequalities occasioned by frost, and presses the earth to the collar and roots of the plants.

2 In preparing new pastures, the rule should be, to endeavor as far as possible, to make them resemble old ones. And this is best effected by sowing seed of all the esteemed varieties found in old pastures.—On this head our practice is very defective; two kinds being the greatest extent to which our experiments have been carried. I have read some interesting experiments made at Woburn by Sinclair, on this subject; but as the book is in the hands of a friend. I can only quote from recollection. This indefatigable experimenter counted the number of plants upon a given surface of rich old pasture, and upon a like surface of new pastures, sown with from two to ten or a dozen kinds of grass seeds. The old sod supported about 11,000 plants; on the new the number varied, I think, from about 700 to 75, and was found to be nearly in the ratio of the number of grass seeds sown. The weight of the produce cut at the proper season, corresponded somewhat with the number of plants. The deductions from these facts were, that by sowing a great number of kinds, and an abundance of seed, new pastures might in two years acquire nearly the value of old ones: for though a given space would grow but a certain number of *one* variety, yet that the same space would support more than double that number of *several* varieties: and that consequently *many* would afford much more forage than *one* or *two* varieties on the same surface.

These deductions correspond with the established maxims of natural philosophy. All plants take from the soil food which benefits all; yet every species requires for its developement and perfection, something peculiar which other species do not imbibe.—And although the soil contains only enough of this peculiar nutriment to support a certain number of plants of one species, yet it may abound in the peculiar nutriment of others But I need not resort to abstruse science to illustrate what is apparent to every intelligent farmer. Our system of rotation of crops is based upon this law of nature; and we see it confirmed in the alternations which are constantly going on in our fields and forests.

Our seed shops do not afford any great range in the selection of grass seeds. But we are better off than we have been; and if farmers consult their true interests, we shall soon find new varieties imported, and more care bestowed in collecting the seeds of valuable indigenous kinds. At present we can obtain seeds of the tall oat grass, (*Avena elatior*,) the orchard grass, (*Dactylis glomerata*,) timothy (*Phleum pratense*,) herd grass (*Agrostis stricta*,) and white and red clover, (*Trifolium pratense* and *T. repens.*) These are all suitable for pasture grasses. The Poa pratensis, P trivialis, P compressa, (rough and smooth stalked meadow and blue grasses) the Agrostis alba, (white top or fall meadow,) the Holcus lanatus, (meadow soft grass) some of the Festucas and several of the Agrostis families, are indigenous, and come in spontaneously, to soils adapted to their growth. The seeds of meadow foxtail, sweet scented vernal grass, rye grass, and the fescue, may be obtained from Great Britain, and would be valuable accessions to our pasture grounds.

Albany Nursery, Jan. 24, 1828.

WATER ROTTING FLAX.

It will be our object to show that flax water-rotted is superior to that which is dew-rotted 1st. It is more durable. To ascertain this, Mr Goodsell placed on the ground a quantity of flax that had been sufficiently water rotted for dressing by the side of an equal quantity of unrotted flax, and turned them once in three days, until the new flax was sufficiently rotted for dressing also; and, upon examination, he found that that which had been previously water rotted had lost none of its strength: both parcels were suffered to remain on the ground, until the dew rotted become worthless, while the water rotted was found to be still strong and good. The same gentleman states that he repeated the experiment with dressed flax, and with the plant, and found the result the same. 2d It will yield a greater quantity of fibre from a given quantity of the plant. The same gentleman states that dew-rotted flax averaged from 12 to 16 pounds of fibre only, while the water rotted gave from 16 to 25 pounds.

In Ireland, Holland, and France, flax is invariably water-rotted; and it is stated by the manufacturers of canvass, that 100 pounds of Dutch flax will yield 72 pounds of clean flax, Irish 65 pounds, while the like quantity of American dew-rotted will yield only 40 pounds. No reason can be discerned why the American flax should yield so much less than the Dutch, unless it be in the process of rotting, dressing, and preparing it for market. It is worth more: while the American dew-rotted flax brings in market but 9 cents per pound, and in that proportion.

To water rot flax, let it be totally immersed in water, and the surface covered with boards, straw, or any thing else, to exclude the rays of the sun. In summer, when the weather and water were both warm, it has been known to rot in seven days; in colder weather a long time will be required When taken from the water, it must be spread to dry.

[*Hamp. Sentinel.*

GYPSEOUS EARTH.

Coggin's Point, Prince George's county, Va.
J. S. Skinner, Esq. *February* 28, 1828.

Dear Sir,—I have sent you by a vessel, from Petersburg, a box of a mineral manure, which, for want of a better name, I call *gypseous earth.* It is found in abundance, in several places, between two and ten miles below City Point, along the south bank of James river. It may possibly deserve notice as a matter of curiosity, if it is confined to these narrow limits. But it is still more worth attention, if nature has placed it, (as seems most likely,) in many parts of our country, where it yet remains unnoticed and useless.

The principal, but not the only ingredient, which makes this earth a manure, is gypsum, in various proportions, from one third down to the smallest perceptible quantity, in the form of very small crystals, and sometimes in white grains, or coarse powder, not crystalized. The earth which you will receive, is believed to be a fair sample of a layer eighteen inches thick, from which I have taken several hundred bushels When digging the same, last winter, I analyzed two specimens, of 384 grains each, and obtained from one 94, and from the other 106 grains of pure gypsum But as this layer is covered by what is less rich, which is dug and used with it, I estimate its average proportion to be one-sixth. A richer and also a much more extensive body, lies at the highest point yet noticed, at the east side of Bayley's creek, where it enters James river; but its value is lessened by the greater size of the crystals, which are very hard, and would remain a long time on the earth without dissolving, many of them are larger than grains of corn, and some of them would weigh two or three ounces.

Besides gypsum, this earth contains a small proportion of some other soluble salt, which sometimes, in dry weather, becomes perceptible on the surface, both to the sight and taste. I have not been able to ascertain its nature; nor do I know how far this ingredient affects the value of the earth as a manure. When applied as thick as common manure, I have known it to almost destroy the productive power of the land—which must have been caused by this salt, as the earth used contained very little, if any, gypsum. Of this poor, and probably worthless kind, the body extends for miles together; and all that I have seen presents similar peculiar features, by which this earth may easily be distinguished, and thereby its richer parts sought for. It is of a greenish colour, sometimes inclining to black, streaked or marbled with pale yellow, and contains many impressions of sea shells, though no particle of shell, or calcareous earth remains. It evidently was once a body of fossil shells and earth, such as is improperly called "*marl,*" which has been changed, by some unaccountable natural process, to its present state.

Scarcely any use has been made of this manure, except by myself, and my experiments have been made under circumstances too unfavourable to be deemed a test of its value. In lower Virginia we have very little soil, on which gypsum has been found to be operative, and still less, where the benefit obtained, is enough to pay the cost; and, of course, not much greater benefit can be expected from this manure, which is so nearly the same. I made many small experiments with it about the year 1818, and found results similar to those obtained from others made with imported plaster of Paris: that is, sometimes it was beneficial, rarely in a very great degree, but most generally had no effect. In one case, a very striking effect was produced on clover, by only six bushels per acre of gypseous earth, of not one third the strength of that sent to you. At that time I supposed the supply on my land to be very limited, and ceased to use it for several years, reserving it for clover, when my land should become more fit to produce it, and also better suited to this manure—for, even then, I entertained an opinion, which time and observation have strengthened, that soils, incapable of deriving any benefit from gypsum, will often become suited to that manure by being made calcareous, to which object, I was directing every effort. Last winter, finding that my supply of this earth, far exceeded my previous expectations, I returned to its use, on a more extensive scale—and again began to sow clover, which former failures had compelled me to abandon. The earth was scattered (in February, March and April,) at the rate of twenty bushels to the acre, which gave more than three of pure gypsum. This is thrice as much as is usually applied; but crystals, fine as they are, most dissolve slowly, and a small quantity only be acting at once It was tried on twelve acres of cotton, three or four on clover, a little alone on corn, and all my manure in the stable and farm-yard, was mixed with as much as was supposed would give twenty bushels of the earth to each acre manured. The last mode of using it, was intended to hasten the fermentation of the heaped vegetable manure. The results were various, and *as yet,* are not so gratifying as I had hoped to find, as all was on marled, or calcareous land. That sowed on the greater part of the cotton, produced considerable benefit, and none on the balance—was beneficial, and generally highly so, on clover, in every experiment--and produced not the slightest effect on corn. Where mixed with other manure, and applied to corn, its effect (if indeed it had any,) was concealed; though I still expect to see it on the clover lately sown there. Could the gypsum of this manure be, in any way, injured or destroyed, by any new substance formed during the fermentation of the heap?

Limited as was the success of my experiments, it has encouraged me to continue, and extend, a manuring which is so cheap, that it is difficult to estimate the expense; and the more readily, as I had before seen benefit from some of my first experiments, several years after they were thought to have failed. Still, however, the full value of this manure, cannot be shown, except on soils the most favourable to the action of gypsum; and if any friend of yours, who cultivates soil of that kind, will promise you to make proper experiments with gypseous earth, and report the results, I will send you a few barrels of it, at my own expense. I have no doubt but it will, hereafter, be an article of sale, for distant transportation, unless the stock is exhausted before its value is fully known; but at this time, any quantity may be obtained at no other cost than digging and removing it from the river bank.

Yours, &c. ED. RUFFIN.

How are Irish Potatoes best Preserved thro' Winter?

Pleasant Point, Warwick county, Va.,
J. S. Skinner, Esq. *Feb.* 18, 1828.

Dear Sir,--I am now engaged in planting a large crop of Irish potatoes, (Solanum Tuberosum.) a fafourite vegetable with me. The soil I have chosen is very light and sandy. I plant them in deep trenches, and have them thickly enveloped in stable manure, and completely covered with the same I anticipate a crop of four hundred bushels; and will be much obliged, in the next Farmer, for a recipe how to save them best through the winter. In this section of Virginia, we always get our seed from the Yankee vessels, on account of not understanding the proper mode to preserve them during the winter; and it is even urged, that they will not answer well, if kept here more than two crops I think this a mistake; and make this inquiry for information. G. LANE CORBIN.

[An answer to the above will be found in Experiments on Potatoes, by J. Buel, Esq., in our last number, preceding volume.]

Extract to the Editor.

Buckingham, Virginia,
J. S. Skinner, Esq. *March* 8, 1828.

Sir,—"I am much annoyed with a little white worm, having a copper-coloured head. They perforate the stalks of young corn, just below the surface of the ground, which destroys its growth. The corn is not exempt from their depredations until it joints. I have listed my corn lands, leaving the clover, in the middle of the rows, to supply them with food. This is a palliative, but not a remedy. The fly deposits its eggs in the fall, upon the stalks of the carrot-weed. The young worms bore a passage through the rind to the pith, which affords them food and good quarters for the winter. Those who choose to examine, will yet find them in the stalks of the carrot-weed, and some on the hog-weed. You will please insert a paragraph in the Farmer, where some of your numerous subscribers and correspondents, may afford a remedy. Yours, &c.

CHARLES YANCEY."

VEGETATION.

Cahaba, State of Alabama,
25th Feb., 1828.

J. S. Skinner, Esq.

Sir,--Vegetation is putting forth in every direction. The honey-suckle and yellow jessamine, have been out this ten days past. Corn, planted the first instant, is six or eight inches high; and the martin has made his appearance, for the first time this season, to-day. Is this not unusoally early?

Yours, &c. P.

[Corn will not be *planted* in Maryland yet for a month. Peach trees not yet in blossom, &c., though the season is earlier here than usoal.]

HORTICULTURE.

COCHINEAL.

On the Cultivation of the Cochineal in the Southern States.

Dear Sir, *Washington, March*, 1828.

I send you an English paper, containing an article on the cultivation of the Cochineal. It is very particular, and may be highly interesting to your southern subscribers. The prickly pear is indigenous in almost every part of the United States, especially in South Carolina and Georgia, near the sea shore. I have seen it growing in abondance on James' island, in the harbour of Charleston, and have also seen on the leaves many of the insects described in the article above alluded to.* Perhaps the publication of the article may induce some of our soothern planters to cultivate the prickly pear, with a view to obtaining the cochineal, and thus add a new staple to the valuable commodities already produced in our soothern states.

Yours, truly,
ALEX. MACOMB.

Cultivation of Cochineal in Malta.

It is not generally known in this country, that the cochineal of Mexico is now coltivated in Europe, and that it is already in our colonies in the Mediterranean.

This valuable and interesting creature was sent from Vera Croz, by Don Pedro Jose Larazo, in 1820; and during the long voyage, nothing material seemed to alter its condition; and, on its arrival at Cadiz, it was delivered over to the Patriotic Society of that place, in order that it should be submitted to more particular management and scientific observations.

The Society readily undertook its management, studied its economy, and went to considerable expense to extend its cultivation throughout the southern provinces of Spain; and, from the numerous generations which have been produced, the size and good quality of the insect, it may be justly considered a new and an important branch of commerce to the Peninsula.

The prickly pear, in the provinces of Grenada, Andalusia, Murcia and Catalonia, is now carefully cultivated for this extraordinary insect to feed opon; and it is now proved, beyond a doubt, that, by attention to the cultivation of the *apuntia*, the brilliancy of colour, and durability of the dye, which the cochineal insect reared in Spain offers, are equal to the finest produced in the province of Guatemala, in Mexico. The general character and propensities of this extraordinary creature are not easily observed, and require great attention. In common with all other animals, it has the distinction of sexes; but no two creatures of the same class can present more characteristic difference than the male and female of the cochineal.

It is not correct, when we are told by naturalists that these insects fly about, from leaf to leaf, and deposite their eggs. The females cannot fly; they never move after they once fasten on the leaf.—They live by suction, and adhere firmly to the plant until they are either gathered for use, or a new generation formed. They grow to the size of small lentil, or an oval shaped pea; they are convex on the outer surface, and concave towards the plant. The convex surface is beautifully marked with lines and rogged; and, when the insect is about fifteen days old, it resembles a loose in many particulars. It has three claws or legs on each side, upon which it walks slowly when once detached from its hold; it will crawl over the hand, or wander over any plane surface, but when it falls, or torns over on its back, which it is very prone to do, it is as helpless as a turtle. It has a kind of proboscis, or sting-like member, extending from the mouth, which penetrates the soft leaf of the *apuntia*, which secures it in a most extraordinary manner in its first situation. They prefer living in society to wandering about the leaf, although it is certain destruction to thousands of them; for when they grow to a certain size, they push one another out of their original situations mechanically—thus the weaker ones, or those that are deposited last, generally perish.

But this mortality can be well afforded, by the prodigious fecundity of the creature. Mr Alzate has declared, by a geometrical calculation, that every cochineal contains *six hundred and thirty-two thousand seven hundred and seventy-seven* young ones. How M Alzate was enabled to hit this exact number, I do not pretend to know; but certain it is, there is nothing in nature that possesses such powers of fecundity as the cochineal insect.

At a very early period they cover themselves with a silky coat of a milky whiteness; and although many of them, occasionally, during the period of their existence, lose this whiteness, (for they do not all do so, and it appears to me to be effected by mechanical friction of one another, from increased growth at different periods, rather than from any natural operation or change within them; and this opinion is the result of observation for many years;) yet they all retain that whiteness until they are gathered for commercial purposes.

The male insects are few: in a society of 1000, perhaps not more than two or three males can be observed. They are furnished with long white wings, and resemble, in point of shape, a *maschito* or spider.

From the thirty-fifth to the forty-fifth day, a prolongation may be observed, extending from the posterior of the female; and about the same period, the males may be discovered busily impregnating the *ova* of the females. This process is far the most important, for if the males, or *machas*, are by any circumstance disturbed, impregnation is rendered incomplete. When this period is over, the males wander about the leaves in a most exhausted and miserable condition, and what is still more strange, they disappear in an instant, and no one can tell what transformation they assume.

The late Marquis of Hastings, during his residence in Malta, offered every encouragement for the introduction and cultivation of this most valuable article of commerce on the island, and although every exertion was made to procure the living insects, they did not arrive on the island during the life-time of that most distinguished and patriotic nobleman. In January, last year, two pots of the prickly pear, with living insects of the cochineal, were put on board an English packet, for the Marchioness of Hastings, at Malta. Her ladyship was then at Malta, and the insects never arrived. The captain of the packet best knows what became of them. They might, indeed, have perished in that inclement season, during the voyage. True it is, they have not since been heard of.

However, not on this account was the affair neglected; an humble individual, who had exerted himself for a period of nearly two years, to preserve the insects for Malta, succeeded last August in introducing on that island three pots of the prickly pear with living insects of the finest quality of cochineal, upon them. They were held at the disposal of his Majesty's government there, for the public good of the island, and the individual who had the happiness to be the first introducer of such an important commercial article, devoted himself, without fee or reward, for three months, to their cultivation and management, and felt particularly gratified to see several generations of those insects produced before he left Malta; and he feels no hesitation in saying, as the prickly pear is indigenous on the island, with ordinary attention to its cultivation, and encouraged by government, it will ultimately become a branch of lucrative commerce to that colony. Sicily, Corfu, and other islands in the Mediterranean, are also eligible for rearing this insect. In order the more effectually to secure its extension and cultivation in the island of Malta, government should offer a premium on every pound weight of cochineal which is produced on the island for the first two years, after which period its cultivation would be prosperous.

[The present price of cochineal in this market is $2 90 to $3 00 per pound—being one dollar less than the average price for several years past.]

SCUPPERNONG VINE.

Mr. Skinner, *Newbern, N. C., March* 4, 1828.

Sir,—My attention was drawn, the other day, to a communication in your paper, dated from Raleigh, N. C., in which the writer says, he is "*clearly* of opinion" that the Scnppernong vine is not a native of Carolina, but was brought hither, and probably by the colony of *French protestants*, which, he says, settled near *Bath;* and he quotes Lawson's History of Carolina, as an aothority for this last position concerning the settlement of the colony.

In may be remarked, however, that to be "*clearly* of opinion," and to be "of a clear opinion" are very different things; and it happens, in this case, that he is entirely mistaken in the *fact* on which he grounds his hypothesis: for the French protestants alluded to, did not settle at or near Bath, or Scuppernong, or Roanoke island; but upon *Trenk river*, which is quite distant from either of these places, and near the town of Newbern, in the neighbourhood of which are now many of their descendants. They came hither from the *Manakin* town, above the falls of James river, in Virginia, where they had discovered the *coal mines*, but by delay suffered an Englishman to get a patent for the land See Lawson, p. 83, and Williamson's History of North Carollua, vol 1, p. 178.

Now, this grape has not been heard of in the neighbourhood of the falls of James river, whence, according to your correspondent, they must have brought it; and it was not known in the neighbourhood of Newbern, until brought hither, from its native district, by one *Hickman*, whose name it bears in this part of the country.

But there is a passage in Lawson completely subversive of your correspondent's notion. He says (p. 114,) that in a conversation with their *pastor*, Monsieur Philip de Rixbourg, "He assured me that their intent was to propagate vines, as far as their circumstances would permit, *provided they could get any slips of vines that would do*" Lawson, however, goes on to say, that at that time (1708,) he "had gotten some grape seed, of the *Jesuits' white grape from Madeira* They came up plentifully," &c. Here, then, is another loop on which to hang a theory of the foreign origin of this grape. Yet this I think

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[* The Editor remembers well, when a small boy at school at Queen Anne, on the Patuxent river, to have seen the prickly pear growing spontaneously and extensively in that neighbourhood.]

will equally fail, though certainly more plausible than any yet offered; for this colony had at that time a commerce with Madeira. *Lawson, p* 82. In our gardens we have still a *white grape*, commonly called the *English* grape, but which was probably from Madeira and perhaps the very grape of which Lawson speaks. It would be easy, however, to determine this point by comparison, if specimens of the three vines were obtained.

Another supposition, I believe, has been started in regard to this grape, by some one, who suggests that it might have been brought to Roanoke island by Sir Walter's last colony. But this person, in his eagerness for theory, must have paid very little regard to probability; for, I ask, is *England* a country more likely to be the parent of a valuable grape than Carolina? Is such a grape known in England? Had that colony been from Portugal, Spain, or the South of France, there had been some colour of plausibility in the supposition; but, as it is, I must think it destitute of even this. It is curious to observe how apt many persons are to suppose that every thing valuable must have a foreign origin Before the supposition can be received in this case, it will be necessary to shew that there is such a grape in the country from which they would derive it This Lawson, whom we have so frequently quoted, was an adventurous and intelligent Englishman, who, having resided in Carolina from 1700 to 1708, wrote and published an account of it on his return to England. His book, printed at London in 1718, is now extremely scarce. It contains some observations on the culture of the vine in Carolina at that time, which may be worth attention. He says, p 112-3, "Some essays of this nature have been made by that honourable knight, Sir Nathaniel Johnson, in South Carolina, who, as I am informed, has rejected all exotic vines, and makes his wine from the natural black grape of Carolina, by grafting it upon its own stock." And farther—"The trimming of vines, as they do in France, that is to a *stump*, must either here not be followed, or we are not sensible of the exact time when they ought to be thus pruned; for experience has taught us that the European grape, suffered to run and expand itself at large, has been found to bear as well in America as in Europe; and when trimmed to a stump, it has first borne a poor crop for a year or two, and then, by bleeding after cutting, became emaciated, and after a few years died. This experiment, I believe, has never failed; for I have trimmed the natural vine the French way, which has been attended at last with the same fate. Wherefore it seems best to leave the vines more branches here than in Europe, or to let them run upon trees, as some do in Lombardy upon elms." *Vites conjungere almis,* as Virgil hath it.

Yours, with respect,
A North Carolinian.

Cultivation of the Vine, Silk, the Olive, Almond, &c.

Greene co., Alabama, 20th Feb., 1828.

Mr. J. S. Skinner,

Dear Sir,—Inclosed I send you five dollars, as a subscription for your useful paper, and in doing so, shall avail myself of the opportunity of giving you a slight sketch of the agricultural prospects and experiments in this part of the country, as, I presume, it is one of which you seldom hear much—having been settled at no very remote period, and by persons, too, who generally pay very little attention to any thing but the main staple, which is cotton My residence is in about lat. thirty-two degrees, forty-two minutes, which I am particular in stating, as I am engaged in several experiments in European and other productions. Deeming this a very favourable climate for vines, and having almost every variety of soil, I, (in conjunction with a French gentleman from Grenoble, who lives immediately adjoining my farm,) have been, for the last two or three years, progressing, though not very rapidly, in establishing a vineyard, on the French plan of cultivation; and although we have not yet arrived to that stage of advancement, in which we can shew many fruits of our labours, the results thus far, are far from being discouraging. We have twelve or fifteen acres planted in vines of several varieties, and some of them succeed remarkably well. We have made some wine, pronounced by connoisseurs in these matters, of very good quality; and this year, we flatter ourselves, we shall make several casks. The vine which seems to flourish most luxuriantly, is the Madeira, though some of the Bordeaux kinds succeed very well. We intend persevering till we find out what kinds succeed best, and produce the best wine in this climate; and as soon as we succeed in that, no doubt, many others will follow our example.

In conjunction with the vine, we are planting mulberry orchards, with the view of raising silk, having some of the best kinds of the French mulberry, for feeding the worms. Of the practicability of succeeding in raising silk, we do not entertain any doubts. The only question is, whether it will be sufficiently profitable to encourage us to proceed—as we have no silk manufactories in the United States, so far as my information extends, and we can hardly undersell, in foreign countries, the French and Chinese, where labour is so much cheaper than with us.

Some other little experiments, of a less general nature, are also in progress, such as, planting almond orchards, and raising fruit trees of almost every description; but from our limited experiments, having been in this part of the country only four years, and being necessarily principally occupied in reclaiming our lands from the rude hand of nature, we have not, as yet, reaped much "fruit" from our labours. There is no doubt, however, but that fruit trees, of almost every kind, will succeed very well here, with the exception only of those peculiar to the tropics. The olive tree, of which we have several, does not succeed very well here, but does in Mobile; where I saw one of the same importation with mine, beginning to blossom, two weeks since, without any protection or particular care. It has been planted only five years, and was not more than two or three years old at the time. The orange tree succeeds very well at Mobile, which is about one hundred and fifty miles south of me; and also as high up the Mississippi river, on the south side, as Point Coupee, where I saw several fine ones in a gentleman's garden, on a visit to that country a few weeks since. While speaking of that place, I may mention to you, as one of the peculiarities of this very peculiar season, that I eat good ripe apples, at the same place, in January last, and was credibly informed, that some of the second growth of the cotton stalks from the old roots, was actually in blossom.

Yours, very respectfully,
ROBERT W. WITHERS.

INTERNAL IMPROVEMENT.

RAIL-ROAD.

Through the politeness of Mr. Thomas, of Cecil county, Md., we received information, that the bill to incorporate a rail-road from Elkton to this place, which had been rejected in the Maryland House of Delegates, has been again taken up on a motion to reconsider. From the following notice, it appears that the bill has passed that House; and that there is every reason to expect that it will pass the Senate. Much credit is due to Mr *Latimer*, for his exertions in the business, and to the gentlemen named in the notice.

The bill, incorporating a rail-road company from Elkton to this place, passed the House of Delegates of Maryland, on Thursday last, through the exertions of Mr. Mercer and Mr Thomas, of Cecil, Mr Lee, of Montgomery, Gen. Steuart, and Mr. McMahon, of Baltimore, and Mr. Thomas, of Frederick. It will pass the Senate.

[*Delaware Gazette.*

[The bill above mentioned has become a law. So has one for making a rail-way from Frenchtown to New Castle. Of the particular provisions we are not acquainted.

It struck us as a strange objection to be made, at this time of day, to these improvements, that they might interfere with the Chesapeake and Delaware canal; because, particularly, the *state* had invested $50,000 in that canal!!—and so, because the state might possibly derive less profit on what may prove to be a most improvident investment, improvements of a rival character, however much better adapted to the public convenience, shall not be constructed even by *private individual contribution!* Who can think of it without being reminded of the fable of the dog in the manger!]

THE SUSQUEHANNA.

A rail-road being made from Baltimore to York Haven, we shall calculate upon having a part of the ascending trade on the Susquehanna, possessing, as we do, a large share of that which descends. The Baltimore Gazette, of a late date, had an advertisement for *one hundred wagons* to carry heavy freights to Anderson's ferry, opposite Marietta. The rail-road being made, a business that would employ a thousand wagons, will be often transacted in certain seasons of the year.

The legislature of Pennsylvania, however, has declined to pass an act corresponding with that which has been passed in Maryland, to make such a road. The subscription books, however, will be opened in Baltimore and York on the 25th inst. and all the stock be taken.

Shares in the Baltimore and Ohio rail-road company are at a large advance. The senate of Virginia, 11 to 11, rejected the bill, which had passed the house of delegates by a large majority, to give to the company a more extended range for the location of the road.

LADIES' DEPARTMENT.

Correspondence of Admiral Collingwood.

Memoirs of Admiral Lord Collingwood, with his Correspondence, have lately been issued in London. They are fitted to inspire the highest respect for the memory of that officer. We copy, this afternoon, two of his letters of advice to his daughters, which bespeak sound sense and pure affection. His biographer says of him—

"Of fifty years, during which he continued in the Navy, about forty-four were passed in active employment abroad: and in the eventful time from 1793, till his death in 1810, he was only for one year in England, and for the remainder was principally engaged in tedious blockades, rarely visiting a port; and on one occasion actually kept the sea for the almost incredible space of twenty-two months, without once dropping his anchor."

The following quotations from his correspondence will shed additional light on the noble character of the man.

"I hardly know how we shall be able to support the dignity to which his majesty has been pleased to raise me. Let others plead for pensions: I can be rich without money, by endeavouring to be superior to every thing poor. I would have my services to my country unstained by any interested motive; and old Scutt and I can go on in our cabbage garden without much greater expense than formerly But I have had a great destruction of my furniture and stock; I have hardly a chair that has not a shot in it, and many have lost both legs and arms, without hope of pension. My wine broke in moving, and my pigs were slain in battle; and these are heavy losses where they cannot be replaced."

Writing to Lady Collingwood in April 1807, he says,

"I am not pleased at what occurred in Parliament about my pension, or that my family should have been represented as one whose existence depended on a gift of money, and I have told Lord Castlereagh my mind on the subject. Though I do not consider poverty to be criminal, yet nobody likes to be held up as an object of compassion. Poor as we are, we are independent. To possess riches is not the object of my ambition, but to deserve them; but I was in hope I should have got another medal--of that indeed I was ambitious."

Letters of the late British Admiral, Lord Collingwood, to his daughters.

Cadiz, July 23, 1808

"*My dearest Sarah and Mary*—It gave me great pleasure to find from your letters that you were well, and I hope making good use of your time. It is at this period of your lives that you must lay the foundation of all knowledge, and of those manners and modes of speaking that distinguish the gentlewoman from the Miss Nothings. A good woman has great and important duties to do in the world, and will always be in danger of doing them ill, and without credit to herself, unless she have acquired knowledge. I have only to recommend to you, not to pass too much of your time in trifling pursuits, or reading books merely of amusement, which afford you no information; nor any thing that you cannot reflect upon afterwards, and feel that you have acquired what you did not know before. Never do any thing that can denote an angry mind; for although every body is born with a certain degree of passion, and from untoward circumstances will sometimes feel its operation, and be what they call out of humour; yet a sensible man or woman will not allow it to be discovered. Check and restrain it; never make any determination till you find it has entirely subsided; and always avoid any thing you may wish unsaid. I hope, Sarah, you continue to read geography. Whenever there are any particular events happening, examine the map and see where they are placed. At Saragossa, in Arragon, the Spanish army was composed mostly of the peasantry of the country, and the priests (who take a great interest in this war) were officers. The Bishop headed the army, and with his sword in one hand, and a cross in the other, fought very bravely until he was shot in the arm. At Andejar, a town on the river Guadalquiver, the Spanish army fought a great battle, and entirely defeated the French. I hope that they will be driven entirely out of Spain very soon. Do you study geometry, which I beg you will consider as quite a necessary branch of knowledge. It contains much that is useful, and a great deal that is entertaining—that you will daily discover as you grow older. Whenever I come home we will never part again while I live; and till then, and ever, I am, my dear girls, your most affectionate father."

To the Hon. Miss Collingwood

"I received your letter, my dearest child, and it made me very happy to find that you and dear Mary were well, and taking pains with your education The greatest pleasure I have in the midst of my toils and troubles, is the expectation which I entertain of finding you improved in knowledge; and that the understanding which it has pleased God to give you both, has been cultivated with care and assiduity. Your future happiness and respectability in the world depend on the diligence with which you apply yourself to the attainment of knowledge at this period of your life; and I hope that no negligence of your own will be a bar to your progress When I write to you, my beloved child, so much interested am I that you should be serviceable and worthy of the friendship and esteem of good and wise people, that I cannot forbear to second and enforce the instruction which you receive by admonitinn of my own—pointing out to you the great advantages that will result from a temperate and sweetness of conduct to all people, on all occasions It does not follow that you are to coincide and agree in opinion with every ill-judging person; but after shewing them your reason for dissenting from their opinion, your argument and opposition to it should not be tinctured by any thing offensive. Never forget for one moment that you are a gentlewoman, and all your words and actions should mark you gentle. I never knew your mother—your dear, your good mother—say a harsh or a hasty thing to any person in my life. Endeavour to imitate her I am quick and hasty in my temper—my sensibility is touched sometimes by a trifle, and my expression of it sudden as gunpowder; but, my darling, it is a misfortune which, not having been sufficiently restrained in my youth, has caused me much pain. It has, indeed, given me more trouble to subdue this natural impetuosity than any thing I ever undertook I believe that you are both mild; but if ever you feel in your little breasts that you inherit a particle of your father's infirmity, restrain it, and quit the subject that has caused it until your serenity be recovered So much for mind and manners Next for accomplishments. No sportsman ever hits a partridge without aiming at it, and skill is acquired by repeated attempts. It is the same thing in every art; unless you aim at perfection you will never attain it. But frequent attempts will make it easy. Never, therefore, do any thing with indifference. Whether it be to mend a rent in your garment, or finish the most delicate piece of art, endeavour to do it as perfectly as it is possible.

"When you write a letter, give it your greatest care that it may be as perfect in all its parts as you can make it. Let the subject be sense, expressed in the most plain, intelligible, and elegant manner that you are capable of. If, in a familiar mood, you be playful and jocular, guard carefully that your wit be not so sharp as to give pain to any person; and before you write a sentence examine over the words of which it is composed, that there be nothing vulgar nor inelegant in them. Remember my dear, that your letter is a picture of your brains, and those whose brains are a compound of folly, nonsense, and impertinence, are to blame to exhibit them to the contempt of the world, or the pity of their friend. To write a letter with negligence, without proper stops, and crooked lines and great flourishing dashes, is inelegant. It argues either great ignorance of what is proper, or great indifference towards the person to whom it is addressed, and is consequently disrespectful. It makes no amends to add an apology for having scrawled a sheet of paper, of bad pens, for you should mend them; or want of time, for nothing is of more importance to you, or to which your time can more properly be devoted. I think I can know the character of a lady by her hand writing. The dashers are all impudent, however they may conceal it from themselves and others; and the scribblers flatter themselves with vain hopes, that as the letter cannot be read, it may be mistaken for sense. I am very anxious to come to England, for I have lately been unwell. The greatest happiness which I expect there, is to find that my dear girls have been assiduous in their learning. May God Almighty bless you, my beloved little Sarah, and sweet Mary too."

A fine woman ought to add annually to her accomplishments, as much as her beauty loses in the time.

SPORTING OLIO.

(From the Charleston Gazette, Feb. 29.)

The Races. The turf was brilliantly attended yesterday, and the sports highly interesting. The regular racing resulted as follows:

Colonel Wynn's Sally Hope,	1	1
Colonel Singleton's Non Descript,	2	2
Mr Harrison's Lady Lightfoot,	3	3
Colonel Span's Archy,	4	4

First heat,	5m.	51s.
Second heat,	6m	3s.

A sweepstake race was afterwards run between Mr. Cotton's Mary and Colonel Spann's Carolina. The first was a dead heat, and the other two were taken by Mr. Cotton's Mary.

Charleston, *March* 1.

The Races.—The lovers of the turf were afforded a rich treat in the racing of yesterday, which is said to have excited more interest than that of any day previous. The day also being fair, the company was numerous and fashionable. The race was not determined until after four heats, which resulted as follows:

Col. Wynn's Wehawk,	3	0	1	1
Col. Singleton's Sally Taylor,	1	0	2	dis.
Col Spann's Multiflora,	2	0	3	2

Time of Running.

First heat,	3m.	52s.
Second heat,	4m.	4s. dead beat.
Third heat,	4m.	2s.
Fourth heat,	4m	

Among the other amusements of the day, may be noticed a foot-race between two very young boys—one of whom, (nine years old,) without breaking his gait, ran round the course in 6½ minutes This was an extraordinary feat, and is worthy of record.

SWEEPER.

The celebrated horse Sweeper, stands at the subscriber's farm, near Georgetown, Kent county, Maryland, where he covers mares at three guineas the season for each mare; to be paid by the first day of October next, in either cash or country produce at market price.

Sweeper is rising eleven years old, a beautiful jet black, with a star in his forehead, full fifteen hands two inches and an half high; is a horse of bone and figure, and moves elegantly. He is generally allowed to be as well a bred horse as any in the United States, and of the very best stock for the turf. His sire was Dr. Hamilton's imported horse Figure; his dam was got by that much admired horse, Othello, who was imported by Col. Tasker; his grandam by the high-bred horse Morton's Traveller, of Virginia, out of the celebrated mare Selime, who was got by the Godolphin Arabian, and imported by Col. Tasker Selime is well known through both this state and Virginia. Sweeper has covered several years in the western shore of this state, in great repute; and his colts are much admired, being both stout and beautiful, and remarkably active, and though none of them exceed four years old, last grass, they have already won several capital subscription purses, as likewise the jockey club purse over the course at the city of Annapolis, in November last. Sweeper stood in this county last season, at Mr. William Ringgold's farm, near Chestertown, where he covered ninety-eight mares. Good pastorage for mares at half a dollar per week.

Particular care and attention will be paid to them, but will not be accountable for accidents or escapes, should any happen.

April 9, 1784. JAMES PEARCE.

Shooting Match.—On Friday last, (says the Brooklyn Star,) a great shooting match took place at the Maspeth hotel, at Newtown, Long island. An Englishman and an American resident of Brooklyn, were the competitors for the purse of one hundred dollars. The American took the purse, beating his antagonist two shots. Each shot at twenty-one birds.

Panther Hunt—The Easton (Penn.) Sentinel says, a few weeks since, Mr. John Vliet, living on the Pocono mountain, in this county, discovered the traces of panthers in his neighbourhood. He started in pursuit, and soon came up with them However extraordinary it may seem to some of our readers, who think it astonishing to kill a score of tom-tits per day, Mr Vliet destroyed three of these ferocious animals in the space of half an hour, with no other companion than his rifle. He received twelve dollars for each scalp, making the whole thirty-six dollars—which is a pretty good half hours' work for a hunter of the Pocono.

Trout Fishing —Owing to the past uncommon mild winter, the trout-fishing on Long island has opened much earlier this spring that usual. Two gentlemen have just returned from the south side of the island, after a jaunt of a week, who met with great sport They took one hundred and eleven trout, weighing. altogether, a little over sixty pounds. The largest fish in the lot, weighed two pounds six ounces.

(From the New England Farmer.)

Scratches or Selenders in Horses.—I have been induced to make public, through the medium of your useful paper, the results of my own practice or experience, relating to *scratches*, or *selenders* in horses.

This disorder, or difficulty, is too well known to all who own these noble animals, or deal in them, to need a particular description of mine. The remedy is simple, safe and certain, in all cases which have come to my knowledge, however inveterate It is only to mix *white lead* and *linseed oil*, in such proportions as will render the application convenient; and I have never known more than two, or three applications necessary, completely to effect a cure. A Farmer.

MISCELLANEOUS.

STEAM ENGINES—INQUIRY.

J. S. Skinner, Esq. *February 22d*, 1828

Sir,—In your estimable journal, No 48, and vol. 9, Davis and Gartner, in reply to Mr G. Wilson, say, that they will, for $500, deliver in Baltimore, a steam engine of two-horse power. To farmers residing in situations distant from grist and saw mills, it is of importance to find some cheap and effective substitute.

Speaking for myself, I am ignorant of the machinists' method of estimating steam power, but I can understand what is meant by a power which can move a pair of mill-stones, from three to five feet diameter; or, which can drive a saw through a three-feet diameter oak log.

In behalf of many, I now, through you, apply to Messrs. Davis and Gartner, to know from them the price of a steam engine, delivered and set in motion, calculated to drive a pair of three and a half feet cullen stones, with the usual velocity and power of good water-mills. Yours, &c. F.

DOG-MILL.

An ingenious mechanic, Mr Mathias, of this city, has in operation, in King-street, a mill for sawing timber for sashes and window-blinds, driven, not by steam-power, nor water, nor cattle-power, but by *dog power.* Four dogs belong to the establishment. They are worked two at a time, for about fifteen minutes, when the *team* is taken off, and a relay of the other two dogs put to labour. They travel on the circumference of the inside of a wheel about twelve or fifteen feet in diameter, which gives motion to the machinery which drives a circular saw with great velocity. It requires some days, and some art to *break a dog in.* It is really amusing to observe the sagacity of these animals They are taught a practical lesson, that, industry is necessary to animal welfare. The cost of keeping four dogs is estimated at only 6d. per day.

[*Troy Sentinel.*

[In Orange county, New-York, famous for its butter, they churn principally by dog-power. We should be obliged, and pay the expense thereof, to any one who would send us the fixtures used in the operation. It would be well if *some* employment could be found for the myriads of *non descript* dogs which are kept all over the town and country, of no family or character, and for no use, as it would seem, but to snap at your horses' heels, and sometimes go mad and spread death and panic through the country.]

(From the Register of Pennsylvania.)

MAIL ESTABLISHMENT.

Few circumstances tend more to exhibit the improving condition of a country than the progressive changes made in the conveyance of the mail. The following advertisements show how little intercourse was maintained with the eastern states in 1755, when an answer could not be received to a letter in less than six weeks, which is now accomplished in six days. At the present day, a letter can be sent from one extremity of the United States to the other and a reply be received, in less time than was then required for the distance of only about three hundred miles

General Post Office, Philadelphia, Feb 11, 1755.

It having been found very inconvenient to persons concerned in trade, that the mail from *Philadelphia to New England* sets out once a fortnight during the winter season: This is to give notice, that the New England mail will henceforth go once a week, the year round, whereby correspondence may be carried on and answers obtained to letters between *Philadelphia and Boston* in three weeks, which used in the winter to require six weeks. By command of the D. Post Master General.

WILLIAM FRANKLIN,
[*Penn. Gaz* 1755] *Comptroller.*

General Post Office, Philadelphia, March 25, 1755.

This is to give notice that for the future the Posts will go *twice* a week between *Philadelphia and New York*, and for that purpose will set out from both those places precisely at *ten* o'clock in the morning on every *Monday* and *Thursday*, and will come in on every *Wednesday* and *Saturday* noon, throughout the year. By order of the Post Master General.

WILLIAM FRANKLIN,
[*Ibid*] *Comptroller.*

May 15, 1755.

The new post between Philadelphia and Winchester, Virg'a. set out from the Post Office this morning, to continue his weekly stages, setting out every Thursday morning during the summer.—[*Ib*

People never speak ill of themselves, except when they believe that they shall be contradicted.

GENERAL LAFAYETTE.

During the progress of this illustrious man through this country, his extraordinary power of recognition was frequently displayed, to the wonder of hundreds of our citizens. The following well attested case deserves to be put on record

In Cincinnati, Ohio, he lodged in the house of Christian Febiger, Esq , whose uncle, Col Febiger, a Danish emigrant, had served under the General in the revolutionary war. In some conversation, respecting his uncle, Mr. Febiger remarked that he was a colonel in the seventh regiment, which the General declared was a mistake, as it was in the second. Mr. F. produced a plate which had belonged to his uncle's sword belt, and was marked "C. F seventh Regiment." The General observed in reply, that this was no proof, as he had been only *adjutant in the seventh*, but had been promoted to a *colonelcy in the second.* This, on inquiry, the nephew found to have been the case.

Even a change in the pronunciation of the name did not escape the General. You do not, sir, says he, pronounce your name as the old Dane did—which was the appellation by which the colonel was distinguished. The colonel's pronunciation of his name was Danish—*Fee-beck-er.* At present, the name is pronounced with the sounds usually attached to the letters in English—Feb-ee-ger.

[*United States' Gazette.*

RECIPES.

RATS! RATS!—*Dead for a ducat.*

"And all his fears were ratified "

Coleman's Lady of the Wreck.

A correspondent, who had noticed in a recent number of our journal, a paragraph recommending ground cork, fried in grease, as an efficacious plan for destroying rats, states, that he lately put the plan to the test of experience, and completely succeeded. "The case was that of two old women in the village of Denny, who had lived in two detached garret-rooms of the same building. The rats had long been troublesome, but at length had became so numerous and daring, that they fairly threatened to challenge the tenants with no longer possession. The fried cork had only been laid for them three nights, before the whole disappeared. A fact of this kind cannot be made too public, since it may be the means of preventing many of those serious accidents which so frequently occur from the use of poison." [*Stirling Journal.*

New Lebanon, Columbia co., N. Y.
Mr. Skinner, *February 25th*, 1828.

Sir—I have cut the above from a newspaper, and send the same to you for insertion in your very valuable paper, and its being so valuable and so widely circulated, is the reason why I send it to you in preference to any other paper in America; and I do know, from personal experience, that rats may be expelled from almost any place where due diligence is used, to either poison, trap or ensnare them. But this is like every thing else; on the reappearance of the reptile, the same means must be used again to destroy them. If weeds re-appear in your gardens, you hoe them over again. Perseverance in killing rats is not a bad practice. A Dutch burgo-master would hunt a rat in a dike, with more eagerness than an Englishman would a stag; but with different reasons: the Englishman hunts for his amusement; the burgo-master for utility, as the rat's operations might inundate a whole town—the Englishman hunts from choice; the sturdy Dutchman from necessity.

TO PERFUME LINEN.

Rose leaves dried in the shade, cloves beat to a powder, and mace scraped; mix them together, and put the composition into little bags.

THE FARMER.

Baltimore, Friday, March 21, 1828.

☞The Trustees of the Maryland Agricultural Society will hold their next meeting at the city residence of George Howard, Esq. on Thursday next, at one o'clock, P M. The members are respectfully requested to be punctual in their attendance without further notice.

☞An early opportunity will be taken to publish such parts of the leading speeches in Congress on the tariff question, as may have the most immediate bearing on agricultural pursuits.

☞No market in the union can produce a lot of finer cattle, than was yesterday exhibited in Monument square, by our enterprising purveyors, the Messrs. Rusks. It consisted of thirteen head of bullocks; some from the stock of General Ridgely, of Hampton, of the Bakewell and Irish stock; one very superior white bullock, bred and fed by Mr. Pearce, of the stock of the late Mr. Yellott, and the rest from the South branch. The lovers of good beef; tender, juicy and well marbled; and those who would offer suitable encouragement to have it brought to us, without waiting for the rail-road, ought to repair to the shambles, where these bullocks will, we doubt not, look quite as inviting, as they did on the hoof, and the sight of them be as well relished as any where, *except on the table.*

N B We are glad to find, that all the respectable drovers of well-fatted beasts that visit our market, from the South branch, western Pennsylvania, Ohio, and other rich districts, find, at the Messrs Parker's, Three-tun tavern, head of Pratt street, the commodious and comfortable accommodations that we ventured to promise them, when they took charge of that extensive and well-arranged establishment.

☞Acknowledgement is due to the liberality of many of our subscribers who take no interest in such items; yet are willing that others should have a small share of the Farmer for anecdotes and sketches of *rural sports and amusements.* The number is yet more considerable of those who are entertained with such sketches, and who would unite in sentiment with an intelligent correspondent, from whose letter we take the liberty of transcribing the following:

Danville, Ky., 7th March, 1828.

"The gratification which your very valuable agricultural journal has given me in the short period that I have been a reader of it, will justify the heartiest expression of thanks, for the interest you take in the advancement of the dignity and welfare of the husbandman. Modern improvements in agriculture have, in a great measure, overcome the dogmatical denunciations of the 'spirit of innovation in long-established usages;" and establish the fact, that this too is an occupation, on which the *mind of man* may be exercised with advantage. In addition to the valuable matter you give us every week, of "solid worth," the "*Sporting Olio*" *assures us of your more intimate sympathy in our pleasures and recreations. The horse, the dog and gun, are the delights of every leisure moment with me, and I would not exchange them for all the refined pleasures of the city—health and contentment are their certain accompaniments, and I hope "The Farmer" will secure to them due respect* "

☞We are glad to find that a gentleman, believed to be particularly well qualified, has undertaken to publish a work descriptive of "The Field Sports of North America."

The Editor of the American Farmer has promised his feeble aid, and will hereafter explain the design more fully—In the mean time, he solicits from all gentlemen amateurs, who would promote it, such information as they can give on the following items.

1. *Deer.*—Natural History: where found, manner of shooting, kind of gun used, trapping, extraordinary animals of the kind, weight, &c hunting with dogs, anecdotes of hunting and shooting, kind of dogs used, season of hunting and shooting.
2. *Bear.*—Natural History: same remarks as above.
3. *Wolf.*—Natural History: do.
4 *Elk* do. do.
5. *Panther.* do. do.
6. *Fox.*—Natural History: season of hunting, what breed of dogs preferred, best kind of fox for the chase, how your packs are supported, and how often hunted, information on every particular connected with the sport earnestly requested.
7 *Raccoon.*—Hunting and habits.
8. *Hare* or Rabbit hunting.
9 *Opossum* hunting.
10 *Squirrel* hunting.

Indian method of taking all these animals.

Birds.--Information as to the habits, season and manner of shooting and taking, anecdotes, &c of the wild turkeys, grous, ruffed grous, pheasant of Pennsylvania, or partridge of the Northern and Eastern States, partridge or quail snaring, driving, &c woodcock, rail or sora, snipe, wildfowl, swan, goose, brant, ducks, toleing, &c. of wild pigeon shooting, netting, and every other method of taking

Statistics of Virginia.

White population west of the Blue Ridge, (40 counties,) . .	253,233
Revenue paid west of the Blue Ridge,	$81 816
White population east of the Blue Ridge,	350,086
Revenue paid east of the Blue Ridge,	$259,625
Whites west of the Blue Ridge, . .	253.238
Coloured 47,753 —three-fifths of whom is	28.652
	281.890
Whites east of the Blue Ridge, . .	350,086
Coloured 415,289—three-fifths of whom is	248.573
	598,659

A Valuable Compliment.

It will be recollected that the proposition to hold a meeting at Harrisburg, of the farmers, manufacturers and others friendly to the protection of domestic industry, originated with the Pennsylvania Society for the promotion of Manufactures and the Mechanic Arts. At a meeting of the acting committee of this society, held at Philadelphia on the 15th of December, 1827, the following resolution was passed, a copy of which has been recently received:

Resolved, That Mr Mathew Carey be a committee to transmit to Mr. Hezekiah Niles, the thanks of the society, for the able manner in which he has with great labour performed the duty entrusted to him by the general convention, assembled on the 31st July at Harrisburg.

Signed, MATHEW CAREY, *Chairman.*

[*Niles' Reg.*

Marketing—Apples, bush. 1 00 *a* 1.50; Butter, lb. .25 *a* 37; Eggs, dozen, .9 *a* 12½; Turnips, bush .37½; Potatoes, .50; Parsnips, .75; Onions, .40; Turkies, .75 *a* 1.00; Ducks, .50; Chickens, pair, .62 *a* 75, Beef, prime pieces, lb. .8; Veal, 8 *a* .10; Mutton, .. *a* 6; Pork, 6; fresh Shad, per pair, 25 *a* 37½; Live Cattle, $6.

Hay, per ton, $10.00; Straw, 6.00.

EDWARD I WILLSON,

Commission Merchant and Planters' Agent, No. 4, Bowly's wharf.

With feelings of gratitude to those friends who have favoured him with their consignments and orders, returns his sincere thanks, and flatters himself, from his strict attention to their interest, to merit a continuance of their favours, as also those who may favour him with their consignments and orders. A residence of thirteen years in Baltimore, in the mercantile line, (five of which have been exclusively devoted to the Commission and Agency business,) and a thorough acquaintance with the markets, will, he flatters himself, fully qualify him to render perfect satisfaction to those who may favour him with the transaction of their business He keeps nothing for sale, as he conceives he can give more general satisfaction by effecting purchases at the most reduced rates, to fill orders, and effecting sales at the best possible advantage. Liberal advances will always be made on produce when brought to market, and cannot be advantageously disposed of

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No 4, Bowly's wharf. —

Tobacco.--Scrubs, $4 00 *a* 7 00—ordinary, 2 00 *a* 4.00 —red, 4.00 *a* 5.00—fine red, 5 00 *a* 6.00—wrapping, 6.00 *a* 12.00—Ohio yellow and red, 4 00 *a* 7.00—yellow, 7.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock, 3.00 *a* 3.10—Kentucky, 3.00 *a* 5.00. Inspections last week, 172 hhds. Maryland, and 38 hhds. Ohio

Flour—white wheat family, $6.00 *a* 6 25—superfine Howard-street, 4.75; city mills, 4.62½; Susquehanna, 4.37½—Corn Meal, bl. 2.50—Grain, best red wheat .80 *a* 85—best white wheat, .90 *a* .95—ordiny. to good, .75 *a* .80--Corn, .33 *a* .34—Rye, 42 *a* 44—Oats, 21 *a* .23 —Beans, .80 *a* 1.00—Peas, 45 *a* .50—Clover seed, 4.50 *a* 4.75—Timothy, 2.50 *a* 3 00—Barley, .60 *a* .62—Flaxseed, .75 *a* .80—Cotton, Virginia, .9 *a* .9½—Louisiana, 10 *a* .13—Alabama, 9 *a* .12—Mississippi, .10 *a* .13—N. Carolina, .9 *a* .10½—Georgia, .9 *a* .10½—Whiskey, in hhds 1st proof, .21—in barrels, 22½—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $280—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 00 *a* 6.50; do. do. trimmed, 6 50—Herrings, No. 1, bbl. 3.00 *a* 3.25; No. 2, 2.62½—Mackerel, No. 1, 5.62½; No. 2, 5 37½; No. 3, 4.50—Bacon, hams, Balt cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.00; ground, 1 25 per bbl.

Sales of corn this day at 33 cts. ordinary. The demand for the last two days is rather greater, though prices are steady. Sales of Susquehanna red wheat at 83 cts of good quality; do. of white, 86 cts second quality. Weight of white and red over 60 lbs to the bushel. It has for some days past been very heavy.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St Paul and Market-sts, where every description of printing is neatly executed.

AGRICULTURE.

HEMP AND FLAX.

Mr Skinner,

Sir,—A subscriber to your paper in Nelson county, Virginia, has asked the comparative merits and demerits of water rotted hemp and that which has been dressed without rotting. I cannot answer his inquiry as it regards hemp, but as flax is an article of nearly as much importance, and as its character is very much the same, I will state to you the difficulties which have occurred in the manufacture of unrotted flax, which will, I have no doubt, in a great measure refer also to hemp, at least so as to enable your subscriber to draw a conclusion unfavourable. I have been some time desirous of making this statement, because many ingenious men are engaged in inventing machinery to break flax without rotting, before ascertaining what is to be done with it after this great business has been accomplished

There never was, to my mind, any difficulty in breaking flax by machinery. rotted or not; but my experience in the manufacture justifies me in hazarding the opinion that flax not rotted, can never be advantageously made use of, unless it be subsequently steamed, or undergo some other process to give it that softness and pliability which water rotted flax always possesses, and without which it cannot be spun economically by machinery, and these after operations will always be more expensive than the simplest of all simple processes—water rotting.

An ingenious gentleman invented a machine for breaking flax without rotting, and sent me a quantity of flax prepared for experiment. The following is extracted from the letter I wrote him, after I had it manufactured into cloth.

100 lbs. of raw flax, hackled on a rougher and cleaner, rendered of cleaned flax,	30 *lbs.*
Total loss in waste, ...	12
[illegible]	[illegible]
	100

Now contrast this with water rotted Irish:

100 lbs of Armagh flax, (a small yield,) clean flax.	55
Loss in actual waste, ...	5
Tow, ...	40
	100 *lbs.*

Thus, in the process of hackling, the machine flax lost 12 per cent.; and in spinning 750 lbs. I weighed in 657 lbs. of yarn, losing in actual waste 93 lbs., nearly 13 per cent. more—making together 25 per cent.; whilst the Irish flax loses in those operations about 14 per cent. The tow of water rotted flax can be as readily manufactured as the flax—and the tow of the machine flax can be made no use of whatever in our mills. From 2500 lbs of machine flax, costing $250. I received 657 lbs of yarn, which cost me 38 cents per lb. exclusive of the cost of labour in manufacturing

To enable you to judge of the possibility of spinning and weaving this flax, I send you a sample of the yarn and the cloths woven therefrom, and although I took some pains to soften by letting it stand over the race-way some weeks, to imbibe moisture, you will find on examination that it is so harsh as to render it impossible for the weaver to bring it together; which will account to you for the slack appearance of the cloth.

In the construction of our machinery we are compelled to compensate for the want of adhesion and elasticity in the fibres of water rotted hemp and flax; but the ingenuity of man has not yet provided for spinning the fibres of a hickory tree, to which I must assimilate the machine flax: the tow therefrom breaks short off in the teeth of the card, to such a degree as to cover the floor, without having the appearance of being either elongated or reduced in diameter.

My experiments on flax not rotted, dew rotted, and water-rotted, for manufacturing into cloth, confirm those made by Mr. N. Goodsell, of New York, as reported by him in the 5th volume of your "Farmer;" and I am satisfied myself that the cheapest and best method is to water rot flax and hemp, both for the manufacturer and the consumer. I recommend Mr. Goodsell's communication to your readers, and especially to those interested in the growth or manufacture of flax.

I have been a manufacturer of flax for many years, on a very extensive scale, and would most gladly second the exertions of any farmer in cultivating it, in any way that I could be thought useful; but with all my endeavours, and those of agricultural societies to back me, I have not in seven years been able to procure one ton of native water rotted flax, although the difference in the price which I offer between this and dew rotted flax is 33⅓ per cent. American dew rotted flax is now selling in our neighbourhood at eight cents per pound. Pull the same flax when the bloom falls and the bolls are forming, and water rot, it is then worth 11 to 12 cents per lb., besides that the crop will weigh from 25 to 30 per cent. more per acre. This difference in price and weight ought alone, without any protecting duties to afford sufficient encouragement to any grower of flax, and will be ample, so long as the manufacturer is sustained to afford him a market; for without the demand created by our establishments, the consumption must be very limited, not certainly sufficiently extensive to make any effort in producing it, much less in improving the quality.

A Flax Spinner.

[The necessity that farmers should diversify the objects of culture, and the appearance that hemp and flax are likely to attract more attention and to be cultivated more extensively than heretofore, especially if encouraged by any act of Congress, induce us to seek information for our subscribers—and we shall be thankful for any communication of practical intelligence on these topicks. There is in the last (5th volume) of the Philadelphia Agricultural Society's Memoirs, a chapter on Italian hemp and flax, introduced by the following:]

Extract of two letters from Mr. Appleton, Consul of the United States at Leghorn, dated 10th June, and 6th December, 1824, to Dr. Mease:

"I now send you a bag containing some seed of the far-famed Bologna hemp, and Cremona flax. The former is twice the length, and nearly twice the strength of the Russian hemp; it is fair and white, and sells here at 50, when the latter will only command 30.* The Cremona flax sells invariably for double as much as all other flax known. I also send a sample of this flax, that it may be compared with others, and with the produce of the seed; and also a translation of instructions, by Professor Tozzetti, of Florence, on the cultivation of hemp and flax."

[The instructions as to the culture do not seem to be well adapted to this country, but it may be of service to some of our patrons, especially in the west, to be supplied with what follows, under the head of]

Maceration and Preparation of the Hemp.

There are several methods for macerating hemp, in order to loosen the fibrous parts of it. This can be done, by exposing the hemp on a meadow, to the influence of the atmosphere, and especially to that of the dews, turning it every day; and then, while still wet with dew, let it be heaped up to undergo some degree of fermentation. But this practice is not one of the best, because the hemp gets unequally macerated. In countries where there is no water to submerge it, maceration may be effected by putting the bundles in ditches, dug in the ground, putting by turns a stack of bundles, and one of earth, covering them well with earth.

The best method of all, is that of plunging the hemp into the water in receptacles made for the purpose; some of which, very large, are to be seen in the territories of Bologna, Arezzo, and Ferrara. Some put the hemp to macerate in the running water of a river; but experience has shewn that it does better in still water, nay, if possible, in water that has already macerated other hemp. Having chosen the convenient pond, the borders must be raised a little to prevent the rain from carrying any earth into it. They then prepare the hemp; well dried, and cleansed from the leaves, they cut off its roots and thinnest extremities, which they put aside to macerate separately. They then make it up in bundles, all of an equal length and size, not too closely bound, and these they dispose in the pond alternately, one opposite to the other, for these bundles being of a shape somewhat conical, they occupy less space, by being so distributed. The bundles made of this species of hemp, must be put to macerate separately, from those of a finer quality. The same precaution must be used with the hemp, that has been gathered, when fully ripe, and that which is less perfect. When the pond is full, let a weight be laid upon the bundles, in order to keep them always under water. In the ponds of the Bolognese, they drive in the bottom, some stakes, at the distance of three or four feet from each other, having at their tops a notch, in which they fit horizontally other poles, to compel the bundles to lie under water. It is necessary to keep the ponds always full of water, so that the hemp be not left exposed to the sun. The true degree of maceration, is when the thready fibre separates easily from the wood, and this can be ascertained by taking a few stalks out of the bundles, and breaking them in several places [illegible] detach with ease. When the hemp has acquired this degree of maceration, they take it out of the pond, and wash it well in clear water; they next put it to dry in the sun, untying the bundles, spreading and turning them, to have them equally dried. When the hemp is perfectly dry, they beat it with cudgels, upon a large plank or stump, in order to break the woody part. After having plucked out the coarsest lints, they make it undergo the operation of the *Gramola*, (or mashing engine.) This is an implement composed of three parallel rulers, the corners of which are sharp and round, and in the interstice of which enter two other rulers, exactly alike, and joined by means of a ring at one of the extremities, with the others. This implement breaks and separates the small woody pieces that had remained after the first operation of beating it with cudgels. They then toss the hemp, and shake off whatever there is left of wood, with the *spattle* or *slice*. The *gramola* alone may be sufficient to break thin hemp: the machine of Christien, of Paris, will do the same for that, which is thin and short; but this single operation will never be sufficient for long and coarse hemp. The hemp so cleaned, and especially the coarse quality for cordage, is put up in bales for commerce; and the finest quality is carded, in order to be spun.

FLEMISH HUSBANDRY.

Sir—Much has been said in praise of English husbandry. it is a well known fact, that this vaunted system is surpassed in many countries which do not possess equal natural advantages. In Scotland, agriculture has progressed at least half a century beyond that of England, where the soil and climate is far more congenial to the productions of the earth than the "bleak mountains of Caledonia." But no where in the world is the contrast so marked as that between the Flemish and English mode of cultivation.

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* Livres is here meant: hemp is sold by the 100 lbs' at Leghorn.

The average produce of a crop of wheat, in England, is twenty-four bushels per acre. In Flanders it is thirty-two bushels. In England, the system of *fallows* almost universally prevails. In Flanders, it has been unknown from time immemorial; two crops, in many cases three, being uniformly raised annually upon the same field. The following comparative tables, as exhibited in "Vanderstraeten's sketch of the Flemish system," shew clearly and correctly its superior advantages over that of England.

Produce of the Flemish farmer, from one acre, for 12 years.	*Crops.*	*Produce of the English farmer, according to the Norfolk course, for the same period.*	*Crops.*
Wheat, 32 bush. per acre,	4	Wheat, 24 bush. per acre,	3
Barley, 60 do. do.	4	Barley, 32 do. do.	3
Flax, hemp, coleseed and potatoes,	4	Turnips,	3
Roots and vegetables for the food of cattle,	10	Clover,	3
In 12 years,	22	In 12 years,	12

The immense difference in favour of the produce of Flanders, does not arise, as might be supposed, from its possessing a better natural soil, or a milder climate than England, but entirely from the different mode of cultivation, pursued in these two countries. At no very distant period, the fields of Flanders, now so productive, were little else but loose sand and gravel, whereas the soil of England, was always naturally fertile, and in part, lies under a more southerly parallel than Flanders.

The rich, abundant and healthy crops obtained by the Flemish farmers, may be traced to the following causes:

1st. The abundance and judicious application of manure. 2d. Digging all the lands on their farms with the spade every six or three years. 3d. The complete extirpation of weeds and noxious roots. 4th. Regular and repeated hoeing. 5th. A careful [illegible] of grain and seeds for sowing. 6th. An approved rotation of crops.

"The whole secret (observes Vanderstraeten) respecting the superiority of Flemish agriculture, consists in this: the farmers procure plenty of food for their cattle—food, which, excepting clover, is raised from the same lands which have already yielded their crops of grain, &c. They keep the greatest possible number of cattle, feed them in the stables plentifully, and render their food palatable. They collect the greatest possible quantity of manure, of which they preserve the fertilizing salts by a suitable progress of fermentation. They weed their grounds thoroughly and repeatedly. They totally extirpate noxious plants and roots, every six or every three years, by digging all the lands on their respective farms—an operation by which they revert to the surface a stratum of fresh soil, that for three or for six years has been absorbing the salts of manure as they filtered to the bottom of the roots, a stratum of soil which has produced no crop during the same period. They, moreover, dress their grounds to the precise point of perfect pulverization. These are inestimable advantages, which cannot be obtained by any plough whatever: hence the drift of the Flemish adage—'Never to let the naked ground lie open to the sun in summer for more than three days.'

"In truth, to say that there exists a vast province, in which the price of lands has been quadrupled within fifty years, and which is neither placed under a more favourable climate, nor enjoys a greater fertility of soil, than England; from which fallows in general have been banished from time immemorial; in which the greater part of the lands produce in nine years at least fifteen harvests, of which those of grain yield, one year with another, as high as thirty-two bushels of wheat per acre; those of barley, sixty bushels; and those of oats, ninety bushels; and where the borders of the fields are planted with trees, in such numbers that by their sale the proprietors acquire every forty years, a sum of money equal to the soil; to say this, appears, to other than English readers, to repeat a tissue of fables.[*] The less informed attribute this uninterrupted succession of harvests to the inexhaustible fertility of soil; but intelligent and well informed travellers attribute it, on the contrary, and with the best reason, to the indefatigable industry of the inhabitants, and to a highly improved mode of culture, of the details of which they are themselves ignorant, and which besides, from their complication, and the great variety of the productions of the soil, require a profound study, of many years duration, to which few of them have either the inclination or the leisure to apply."

This correct, though "bird's eye" view, of Flemish husbandry, merits farther amplification, in order to furnish distinct data to the intelligent and enterprising agriculturist. My subsequent communications will be directed to that subject.

Respectfully, yours, GEO. HOUSTON.

FLORIDA,

[Though the latest territorial acquisition of the United States, its inherent fertility and local bearing have commended it to the notice of the publick in such manner that its population is increasing with wonderful rapidity, and the attention of the government has been attracted towards it on various occasions by the connection of its local situation and resources with the "general welfare." The delegate who so ably represents it in Congress, ever watchful for what may accelerate its growth and augment its consequence, has recently made an exposition to the committee on commerce, to shew the importance of making St. Marks a port of entry, and of building there a light house and improving the harbour.—The committee have so far concurred with the honourable delegate [illegible] appropriation for the two first named objects, and a survey of the harbour with a view to the last.

The following extracts from Mr. White's letter, shew the value of that part of the country and its productions; which looks to St. Marks as its proper outlet.]

"It is little more than three years since the removal of the Indians, and since the first stroke of the axe was heard in its woods, and in that period it has acquired a population little short of four or five thousand souls."

"Nearly the whole of the extensive tract which lies south of the Flint river, embracing several valuable counties of Georgia, particularly Decatur and Thomas, and which stretches from the Oelockney to the Suwaney, perhaps of sufficient extent to form a respectable state, must look to St. Marks as the only outlet for its trade. The produce of this region, which will enter into commerce, and which already forms an item of export, consists of cotton, sgar and hides. The sea island cotton is produced aa distance of thirty miles from the sea, but the qlity is better in proportion to the proximity to tl coast. From the best information I have been ae to collect, several thousand bales of cotton of a sterior quality, will form the crop of the coming yr. There is another source of wealth which bids fa to become important before many years. In tl vast grassy undulating pine lands which spread frm the Flint river to the coast, checkered only by spts of fertile land, the stocks of cattle are increasin with incredible rapidity. Many individuals ow from one hundred to a thousand head, and as the *herds* are sufficient to double their numbers evry three years, it may be readily imagined that thr hides, and the dried beef for the Havana marke may form no unimportant item of the exports of t. Marks. Perhaps live stocks, especially hogs, cosidering the certainty with which a voyage can be erformed by taking advantage of a northerly wid in the winter, may at some future day, be sent fro this place to Cuba.

"But by far the most valuable product of the country will be the article of sugar; and in this article I hae no hesitation in saying, that Middle Florida, and he adjacent counties of Georgia, are destined at n distant day to furnish a most important item to or domestic trade. Few who consider the immene value of the sugar crop in Louisiana, and which supplies at least one-third of the consumption f the United States, are aware of how small a portin of the rich lands of that state are occupied in it production. Perhaps the lands thus occupied woud not, in the whole, constitute three entire townships. They consist of very narrow strips alog the margin of the Mississippi and the Teche, in the southern parts of the state. Climate is the most serious consideration in the culture of the cane, for it is, by no means, a plant which requires a soil of extraordinary fertility. Hence it is that so [illegible] state of Georgia, is adapted to its growth. The great river Mississippi, which forms the conduit of the north and south winds, is probably the cause of very sudden changes and inequalities of seasons, which tend to render the crop a less certain one. And it is moreover, the opinion of well informed persons, that the moistness of the soil, and the dampness of the climate, have an injurious effect on the quality of the sugar, and render it unfit for transportation to foreign countries. The sugar which, within a few years past, has been made on the small spots of high land to the west of the Mississippi, and near the coast, is said to be of a superior quality, more dry, and capable of being kept for a longer time. I do not hesitate to say, that the climate of Middle Florida is, in some respects, preferable to that of Louisiana. It is less liable to sudden changes, is more mild and less humid. The great dryness of the soil will have a favorable influence on the quality of the sugar; at least the successful experiments which have been made, exhibit this result. It is well known that the clayed sugars of Brazil, and the muscovadoes of Cuba, imported into the United States, are made on dry soils. The sugar of Middle Florida will probably partake of this character, and may possibly be found as well adapted to the use of the refineries as those which are imported."

"I would consider it a low estimate, if I were to say, that the quantity of land in Middle Florida, and in the adjacent parts of Georgia, adapted to the cultivation of the sugar-cane, is five times as great as that actually in cultivation on the sugar-plantations of Louisiana, and consisting of uplands entirely, the sugar will be of a superior quality. These lands have already been purchased by individuals, or are daily entered at the Land office. Those who have settled them, are all, more or less, engaged in the cultivation of the cane. The greater part of these settlers, are laborious and industri-

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[*] In Flanders, wheat yields twenty; rye, twenty-six; barley, twenty-six; and oats, forty, for one. Wheat holds only the fifth rank in value in the harvest of Flanders. In England, wheat never yields more, on an average, than ten or eleven for one; barley, something less than ten to one; and oats only between eight and nine for one. In some highly ameliorated farms in the county of Suffolk, Arthur Young reports a produce of thirty-six bushels of wheat, and sixty-four bushels of barley, to the acre; and that in the county of Kent, soils of middling quality, equally ameliorated, yield per acre; fifty-two bushels of wheat, and the same quantity of barley. But in Flanders, there are soils which yield much more than this—namely, seventy-two bushels of wheat, 120 of barley, 128 of beans, and 72 of coleseed. These, however, are extreme cases, which do not affect the general question of comparative growths; while, however, they show that the amelioration of land, in any country, is calculated greatly to increase its productiveness.

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ous farmers, who put their own hands to the plough; and such is the mildness of the summers, that they find it as easy to work in the fields, as in the upper parts of North Carolina, South Carolina and Georgia. The lands of a better quality, lying, for the most part, in small bodies, but surrounded by fine pasturage, afford only occasional situations for plantations, on an extensive scale. Hence the proportion of white population will be much more inconsiderable than it might be supposed. It is true, that but few would possess the means of erecting sugar-works at the expense of 5 or 10,000 dollars, which has hitherto been thought absolutely indispensable; but of late I am informed, that important improvements are about to be made, by which the planters in middling circumstances, will be enabled to cultivate the cane to equal advantage; that is by the establishment of sugar-works, by persons unconnected with the plantations, for the purpose of manufacturing the cane cultivated by others."

Agricultural Society of South Carolina.

Charleston, Feb. 7.

The Agricultural Society of South Carolina held its annual meeting on Friday and Saturday last, when the following premiums were adjudged:

To Mr. Singleton, for his thorough-bred stallion, Crusader, the gold medal.

To Mr. James Adger, for a brown cow, the silver medal.

To Mr. Charles E. Rowand, for a crop of sweet potatoes, manured in an unusual way, the gold medal.

To Mr. James Cuthbert, for a crop of corn, planted and manured in an unusual manner, the silver medal. [*Courier.*

ON THE CULTURE OF POTATOES.

Rockland Place, 6th mo., (June,) 19, 1820.

Gentlemen,

Any discovery made, substituting a substance in the place of barn yard or stable manure, that will operate equally well in promoting the growth of a valuable esculent for the table, at a much cheaper rate than said manure, I am of the opinion ought to be generally known; and, therefore, I have been induced to state the result of an experiment I made last year in the culture of potatoes: substituting rye straw, in the dry state, on a part of them, in the place of stable manure.

The seed potatoes were first dropped or placed in the furrows, the usual distance apart, say ten to eleven inches: a moderate quantity of straw then spread immediately on them; after which the potatoes and straw were covered with the soil, by means of the plough, in a similar manner to those planted with the stable manure, and their treatment the same during the season. The strawed and manured potatoes were both planted on the 19th of 5th month, (May,) and on the 21st of the tenth month (October,) following, I had the produce taken from the ground; and as the season throughout had been remarkably dry, as is well known, I was surprised to find (presuming that a wet season would have best suited the dry straw,) that my straw potatoes were quite equal in quantity, quality and size, to those on which I had been liberal in the application of stable manure. The nature of the soil on which these potatoes grew, is about the medium between a light and a heavy loam. Encouraged by my success last year, I am again trying the straw on a more extended scale this season. I should like others to try it, and on different descriptions of soil.

I am, with sincere respect,

ISAAC C. JONES.

Comparative difference in the expense, between stable manure and rye straw, in the culture of one acre of potatoes, provided each were to purchased at the Philadelphia market price, and delivered on a farm at the distance of four miles. From a calculation made, which I believe correct, it will require 200 bundles of straw of the usual average weight (say 14 lbs.) per acre, which you may purchase and have delivered at 8 cents per bundle—16 dollars. Twenty-two horse cart loads of stable manure (more frequently twenty five are put,) per acre, first cost of which and delivery at a low rate, (say three dollars per load,) 60 dollars. Saving, 44 dollars. [*Memoirs Phila. Agric. Soc.*

INCREASE OF SHEEP.

A correspondent in Orange county informs us, that in November, 1826, he had seven ewes, a ram and a wether; that during the winter, the seven ewes had nine lambs, which just doubled his stock. In August, 1827, one of his ewes had another lamb; so that in less than twelve months, from his original stock he had ten lambs, making in the whole, nineteen.

[The above is from the Raleigh Register—but here is a case of "increase" yet more extraordinary. Extract to the Editor of the American Farmer, dated March 18, York county, Virginia, from a respectable citizen:]

"You can state in your useful paper, a fact which has occurred in my neighbourhood. Mr. Samuel Shield, clerk of our court, has a ewe which has produced eight fine lambs in the last twelve months. He resides about six miles below York Town, and being an unusual occurrence here, is a neighbourhood talk."

At a wood chopping frolic in Forks' township, on the plantation of Mr. Edward B. Shimer, an oak tree was felled a few weeks ago, which measured six feet in diameter. It was sawed and split into the usual size of firewood in fifteen minutes, by eight hands and yielded 12½ cords of wood.

HORTICULTURE.

(Extracted from "Prince's Treatise on Horticulture.")

ROSES.

No class of plants, so easy of culture as this, yields more intrinsic delights to the amateur; the diversity of size, colour, fragrance and form, have been varied by art to an almost infinite degree, and in the collections of Europe above 1400 varieties are enumerated. Since the catalogue of the author's establishment was put to press, above 100 new varieties have been received, and the collection now exceeds 600 varieties, including 100 kinds of China and India roses, and 15 varieties of the Moss rose. Enduring the rigour of the severest winters uninjured, and yielding with so little attention such a rich accumulation of beauty and fragrance, every garden should possess at least all the more conspicuous varieties of this unrivalled flower; and it is hoped, ere long, we shall see the fashion followed in this country, which has for years prevailed in England, of training the hardy climbing varieties of the Chinese and other twining roses against the sides of our country houses and cottages, as the profusion of flowers which they daily afford from spring to autumn, gives to the retirement of these rural scenes a degree of Floral enchantment, and throws an air of magic round the spot.

Soil.—The rose, with few exceptions, delights in a light fresh soil, not subject to become sodden with rain and wet. I have found a mellow loam very successful in causing them to flourish, and to throw out vigorous shoots and abundance of flowers; but the rose is by no means difficult to accommodate to almost any soil not saturated by superabundant moisture.

Propagation.—The rose is generally increased by suckers from the root, or by layers; there are also many varieties which succeed by cuttings, but these are principally the Chinese varieties. They may also be increased by inoculating and grafting; but these seldom survive beyond the third year, when others should be budded from them to supply their places.

Varieties.—These are so numerous, that it is impossible to give descriptions of them in this limited work. Many of them, however, have brief remarks attached to their names in the catalogue, descriptive of their characters. Although the author's collection is very numerous, still the selections have been made with great care, and they combine a rich accumulation of the varied beauties of this favourite flower. I will now proceed to make a few remarks relative to some particular varieties.

Moss Rose.—Of this there are a number of varieties, varying in colour, size, and other circumstances. The one most generally known is the Red moss. The others are the Blush moss, with very large flowers of an exceedingly delicate colour, and by many considered to surpass all others; the New Red moss and the Scarlet moss are very fine; the White and the Striped moss, the Small moss, Dark moss, Single moss, &c. are also much admired, and the whole form an unique collection in this family of flowers.

Yellow Roses.—There appears to exist some difficulty in making the Double yellow to flower well; I will therefore remark, that it requires an airy situation, and in dry and gravelly soils; and that the old wood should be cut out near the ground every autumn, which will cause a succession of thrifty blooming shoots. When budded on the Common China, or the White musk, it is said to bloom exceedingly well; and one instance is mentioned by Loudon, where it was budded on the China rose at the height of ten feet from the ground, in which case it was found to flower abundantly.

The following [illegible] also extracted from his Magazine:

The Double Yellow rose flowers better on an east or west, or even a north wall, than on one exposed to the south; it should never be pruned further than by cutting out the dead and irregular shoots, and thinning out the blossom buds; it has flowered under such treatment for several years on the south and west ends of a house. It flowers as freely budded on the Rosa indica, as Rosa odorata does on the Common Blush rose. Another writer recommends a northern aspect in preference to a southern one, and mentions one that bloomed very freely on an east or north-east wall, and others that had produced abundance of flowers when planted on a very dry chalky soil. The Single Yellow, and Red and Yellow Austrian, bloom freely in almost any soil, and with little or no care. There are various other yellow roses, viz: the Single and Double Yellow Scotch, the Yellow Tea-scented, the Yellow Multiflora, &c.

Black Roses.—The desideratum of a black rose has long been a subject of comment, but does not in fact exist. Those so denominated are of an exceedingly deep purple colour, with some shades of black intermingled. Of these some are darker than others, and they vary in point of size, form, and in being more or less double, &c. The author has imported from every country those which are there considered the darkest or blackest, which have all produced flowers; he is consequently able to give his opinions with accuracy. The darkest of these is the La Belle Africaine; next are the Imperial, the Sable, the Black Mogul, and the Gloriosa Superba Noir; then follow the other twelve varieties enumerated in the catalogue, including the Tuscany, which was a few years since the darkest then known, and is still considered as one of the most beautiful roses.

Tricolour, or Belle Alliance.—This is a most singular and beautiful rose; there is no other that at all approaches it in appearance. When first expanded, the petals are a fine red, striped with white, the colour afterwards changes to shades of lilac, united with the red and white, at which period it is most interesting. It was obtained from a very skilful florist in the interior of Holland, and by him more highly prized than any other rose in his collection.

Sweetbriar, or Eglantine.—This delightful species of the rose family is well calculated to train against the sides of houses, or up the pillars of the piazza, or to intermingle with the vines which entwine bowers, &c. There are a number of varieties, the most common is the Single Red, which is found frequently growing in wild luxuriance by the sides of roads, hedges, &c.; the next is the Single Blush, imported from Europe; after which follow the more rare varieties, viz: the Semidouble Red, the Double Red, Double Blush, Double Marbled, Double White, the Evergreen, and the Chinese White Some of these are as large as a middle sized rose, and two inches in diameter. After training these in the situation they are to occupy, the branches may be inoculated with numerous other kinds of roses at a considerable height from the ground, which will render them particularly interesting.

(From the New York Farmer.)

ON THE CULTIVATION OF EARLY PEAS.

By William Curr, Gardener, of New York.

As the least improvement in any art or science is of consequence, not only to those engaged in the particular department treated upon, but is of advantage to the whole human family; and as there is, perhaps, no art can give a more healthy, rational and useful amusement to man than horticulture—whatever tends to the promotion of any part of it, cannot be unacceptable to the public.

As I have been very fortunate in the early raising of that excellent vegetable the pea, I flatter myself that these few observations may not be altogether uninteresting to some of your readers. I have for a number of years paid a good deal of attention to having peas early, and have tried a great many methods to attain that end; and I think the method I have adopted has some advantages over the common plan. I have often sown my peas in the month of February, and beginning of March, and I have never lost a pea from frost. Peas ought to be got of the earliest sorts, and, if possible, without bug holes in them, which although holed, may grow till they will be found to produce more sickly plants than those which are well kept and sound. The peas which I have found to do best with me, are the early double blossomed frame peas. I prefer to have them two or three years old, as they bear earlier and do not run so much into vine. An early piece of ground should be selected for this purpose, not too rich, and if possible lying dry. It should be well dug without dung, and made fine with the spade and rake. The drills should be drawn 3½ feet apart, six inches deep and two inches wide at the bottom, and about one inch of well rotted short dung laid in them, which should be covered with two inches of earth, and the peas sown over them with about six inches of earth, which leaves a small ridge immediately above the peas. In this state they may lie for eight or ten days; the ground may then be raked level to await the coming up of the peas. Should they make their appearance in cold weather, a little litter or straw may be laid along the drills, and taken off whenever the air is free from frost.—When the peas are about one inch high, the earth should be gently stirred with the hoe on each side of the row, and when they are advanced to about three inches in height, a little earth may be drawn up to their stems; if the weather be cold, they may be protected by setting two boards on the edge so that they may meet together over the row. As the peas advance, the earth should be stirred near the rows, and when six inches high, they ought to have sticks set out on each side of the row, at the distance of from twelve to eighteen inches apart, taking care not to have the sticks too crowded, yet to have enough of branches near their bottoms, so that the tendrils of the peas may take easy hold Care should now be taken that the peas keep upright; when they put out six or eight flowers, the leading shoot should be stopped by nipping the top off; this greatly promotes the forming and filling of the pods.

Should the weather be dry, it may be requisite to water the rows; this should be done at night, and should be continued every night during the continuance of the drought. Peas thus raised are seldom attacked with the bug, as those depredators are not often astir so early in the season. For the later crop, the double row is generally used, and answers better than the single, as the double take nearly the same quantity of sticks, and are more shaded from the sun, which is a great advantage when the sun gets high. The ground may likewise be stronger and the sticks longer, but for the earliest peas the small quantity of manure used is quite sufficient to push them forward, without giving too much force to their after growth, or to keep them from flowering, setting, and filling their pods. In the saving of peas for seed, the earliest pods should always be selected, as they are better filled, and the peas from them will produce earlier than those saved from vines which have bore long, and are less subject to be infected by the bug.

I am, sir, yours most respectfully,

WILLIAM CURR.

GRAPE VINES.

The quickest method of procuring grapes, is to graft into the body, near the ground, or which is preferable, into the roots of large vines. In the following year, if the graft has taken, fruit will be produced. Thus every farmer, who has wild vines growing on his grounds, may, by procuring cuttings of hardy foreign or native kinds, and paying a little attention to the grafting and training, be soon and amply supplied with grapes for market or wine-making.

RURAL ECONOMY.

TO CULTIVATE BEE-FLOWERS.

Bees are most fond of those places where their favourite flowers are to be found; therefore bee-keepers should encourage the growth of such shrubs and flowers, as are known to supply honey and wax in the greatest abundance: in most situations, bees do not fly far for food—generally not more than half a mile; they may be observed to return with great precipitation to the hive, when rain or storm approaches. The following are the most favourable for pasturage, and those which blossom early are the most desirable:

Shrubs, &c.—Sallow, or the grey willow, rosemary, barbary-tree, gooseberry, raspberry, apricot, and all other fruit-trees; lime-trees, furze, broom, heath.

Flowers—Mignonette, lemon thyme, garden and wild thyme, borage, winter savory, hyssop, mustard, (when left for the seed,) turnips, (ditto,) cabbage, (ditto,) white clover, (ditto,) scarlet and other beans, when in bloom. Mignonette, borage, and lemon thyme, are the principal, as they continue very long in bloom, and afford the finest honey Rosemary is also a great favourite, but seldom supplies much honey, unless the weather proves very hot and dry when it is in bloom; yet it is worth tivating, especially in a southern aspect, being one of the principal aromatic plants, from which the bees in the neighbourhood of Narbonne collect their honey, which is esteemed the finest in Europe. Fields of beans, white clover, and buckwheat are of great benefit Rivers, or streams of water, are also very beneficial, as bees make use of a great deal of water

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SITUATION OF A GARDEN.

A garden, if possible, should be on a gentle declivity towards the south, a little inclining to the ea, to receive the benefit of the morning sun. If it be situated in a bottom, the wind will have the less effect upon it; but then damps and fogs will be very prejudicial to the fruit and other crops; and if situated too high, although it will, in a great measure, be free from damps and fogs, it will be exposed to great winds, much to the hurt of the trees, by breaking their branches and blowing down their blooms and fruit. A garden should be well sheltered from the north and east, to prevent the blighting winds from affecting the trees; and also from the westerly winds, which are very hurtful to gardens in the spring and summer months. If a garden be not naturally sheltered with gentle rising hills, which are the best shelter of any, plantations of forest trees, made at proper distances, so as not to shade it, will be found the best substitute. At the same time, there ought to be a free admittance for the sun and air. On that account, a place surrounded by woods, is a very improper situation for a garden or orchard, as a foul, stagnant air, is unfavorable to vegetation; and it has been also observed, that blights are more frequent in such situations, than in those more open and exposed.

[*Forsyth.*

INTERNAL IMPROVEMENT.

RAIL-ROAD

From the City of Charleston to the Towns of Columbia, Camden, Hamburg, &c in South Carolina.

In addition to the report lately published, the committee on the proposed rail-road, have handed to us for insertion; the following information, relative to its route:

The committee appointed by the citizens on the subject of the proposed rail-road, are happy to have it in their power to lay before the public the information that has resulted from the reconnoisance of the civil engineers lately employed for that purpose, who have had the aid and co-operation of Colonel Blanding, the superintendant of public works, who has also devoted a portion of his time to this important service, and who has favoured the committee with the following communication:

To TIMOTHY FORD, ESQ.

Dear Sir—The request of the committee of the citizens of Charleston, communicated in you favors of the 13th and 28th ult. I have met with great pleasure I regret, that the day fixed for opening the books, has been so early as to leave me very little time to view the ground, and to prepare the answers to your inquiries as to the practicability and probable cost of a rail-road between your city and Hamburg.

I have, however, been able to make such examinations, that aided by the information of Messrs. Parker and Payne, who were on the ground before me, I can unhesitatingly pronounce, that *such a road is perfectly practicable.* I think I am warranted in going farther, and saying, that no line of road of the same extent, connecting two such important points as Charleston and Augusta, can be found in the United States, where the same facilities of graduation and construction are combined in the same degree as on this.

It may be proper that I should state some of the principal facts on which the above opinion is formed. From Messrs. Parker and Payne's levels, in which entire confidence may be placed, the summit between Charleston and Hamburg, is found to be three hundred and seventy-five feet above the latter place at the Augusta bridge; and from facts which can be satisfactorily illustrated, I assume that this summit is five hundred and forty-five feet above Charleston Neck at the lines. This summit is one hundred and twenty-three miles from Charleston by the public road, and seventeen miles from Hamburg. So that a regular ascent from Charleston to that sum it would have a rise of four and a half feet to the mile, and from Hamburg to the same summit, a regular rise would be twenty three feet to the mile. On the Charleston side of the summit, the ground is remarkably regular; the depressions and swells in its surface are not great, and I am clearly of opinion that with very moderate expense, a graduation may be obtained, on which the approach to Charleston will no where have a rise of more than ten feet to the mile, and in the contrary direction sixteen feet to the mile may be made the maximum rise

On the other side of the summit all the difficulties are to be found in the way of the locomotive engine, as a power on this road. They begin about Horse creek bridge and extend about twelve miles. At the first view these difficulties appeared formidable indeed, but they vanished on a careful examination of the whole ground. The country where this rise of three hundred and seventy-five feet must be made, is a high ridge, beginning near Savannah river, and winding with a very broken surface and devious course, between the waters of Horse creek and Hollow creek, until it runs into the highlands between Edisto and Savannah rivers. On this ridge the present road runs. It rises at some points as high as three hundred and seventy five feet above Hamburg, and it has depressions across it which sink as low as three hundred and twenty-two feet above that place. On the North (or Horse creek) side of this ridge it is indented with long, deep vallies, extending nearly up to its summit, separated from each other by long, high and broad hills, projecting down the valley of Horse creek with a gradual depression of surface. Some of them are two miles long. It is by winding round these hills and up these vallies that the road may be regularly graduated, with a rise of twenty feet in the mile, and thereby the distance will be increased about six miles. And this is the price which must be paid to avoid a stationary engine.

If this increase of length of road should be made an objection, then a different course may be pursued. The valley of Horse creek may be followed up to Wise creek, which on the map is represented as heading near the Horse-pen pond and up the valley of the latter creek to one of its head branches, one of which is found to be one hundred and sixty feet lower than the summit, and two hundred and fifteen feet higher than Hamburg. The road from Hamburg into this branch may be graduated on a rise of less than twenty feet to the mile, and the remainder of the ascent must then be gained by a stationary engine, working on an inclined plane, of any angle of rise which may be deemed advisable.

Should animal power be used on the road, a different course and graduation might be adopted with great facilities. The direction of the road may then be, to follow up the valley of Horse creek to Myers' mills, about eight miles from Hamburg, in which distance thirty or forty feet elevation may be attained. From this point, Messrs. Payne and Parker marked a line of graduation of forty feet rise in the mile, and gained one of the depressions in the ridge between Horse and Hollow creeks, in the distance of seven miles and fifty chains. Pursuing the same rise from this point, one mile and forty chains further, and the summit may be gained. On this plan, the road would no where have a rise of more than sixteen feet to the mile, except for nine miles, where the rise would be forty feet to the mile. On these nine miles, an additional number of horses may be used. This might be done, although between the summit and Charleston, locomotive engines alone should be used, all the carriages might be brought up from Hamburg to the summit by horses, and then be conveyed to Charleston by steam power.

These views are presented with a full conviction that the ground possesses all the facilities which are above represented; and it may be found on the minute examination which must precede the formation of the plans of execution, that still greater facilities exist.

From the above views, it results, that the company have the choice of four different plans of graduation and construction; which will admit—

1st. Of running entirely through from Charleston to Hamburg with the locomotive engine.

2d. Of using the locomotive engine except at one point were a stationary engine may be used.

3d. Of using the locomotive engine on the Charleston side of the summit, and horses on the other; or,

4th. Of using horses all the way through.

To which of these plans the preference should be given, I am not fully prepared to say, and at this stage of the business, it is not necessary that a decision should be made.

Respectfully, yours, A. BLANDING.

Council last night, resolved to take stock in the proposed Rail-road, in the name of the city, to the amount of $20.000. [*Charleston Pat.*

LADIES' DEPARTMENT.

VERNAL ODE.

See! see! the genial spring again
Unbind the glebe and paint the plain.
The garden blooms; the tulips gay
For thee put on their best array;
And ev'ry flower so richly dight
In spangled robes of varying light.

From noisy towns and noxious sky,
Hither Amelia! haste and fly.
View these gay scenes; their sweets inhale,
Health breathes in every balmy gale,
Nor fear, lest the retiring storm
The vernal season may deform.
For hark! I hear the swallows sing,
Who ne'er uncertain tidings bring;
They with glad voice proclaim on high,
"The spring is come, the summer's nigh!"—
Sweet bird! what sacred love is thine,
Thou countest no revolving day
By solar or sidereal ray:
No clock hast thou, with busy chime
To tell the silent lapse of time;
To call thee from thy drowsy cell,
'Tis Heaven that rings thy matin bell.
Strait all the chatt'ring tribe obey;
Start from their trance, and wing away;
To their lov'd summer seats repair!
And ev'ry pinion floats on air.

A Belle in the Year 1350.

Her head was encircled with a turban, or covered with a species of mitre, of enormous height, from the summit of which ribbons floated in the air, like the streamers from the head of a mast. Her tunic was half of one colour and half of another; a zone deeply embroidered and richly ornamented with gold, confined her waist, and from it was suspended in front two daggers in their respective pouches. Thus attired, she rode in the company of her knight to jousts and tournaments

[*Lingard's History of England.*

The marriage of the young Prince of Moskwa, (Marshal Ney's son,) and Mademoiselle Lafitte, daughter of the celebrated banker, took place at Paris, with great pomp, on Sunday week. Mr. Lafitte signalized the marriage by great charitable donations and splendid presents. He sent 100,000 francs (4,000*l.*) to the bureaux of the different charities of the capital, and ordered each of his clerks to receive a gratification of 3,000 francs, (150*l.*) The Prince, who is by no means in affluent circumstances, refused a present of 2,000,000 of Francs, (80,000*l.*) which his father-in law offered on the marriage contract. This marriage has given rise to the following impromptu:

Lafitte asked his girl, if she'd marry a Prince,
  Expecting, of course, she'd say yea!
But judge his surprise, in return for his hints,
  When she blushingly whispered out "Ney!"

Married, at Black lake, (L. I.) Mr. James Anderson to Miss Anne Bread.

While toasts their lovely graces spread,
  And fops around them flutter,
I'll be content with *Anne Bread*,
  And won't have any *but-her*.

SPORTING OLIO.

FOX HUNT.

Extract from a member of the Washington, to one of the Baltimore Hunt

Dear Sir, *March 20, 1828.*

It can be seen by the silence we observe to each other, that the season for hunting has passed by. I must, however, tell you we had a chase last week. D , myself, and some six others, from the city, met some gentlemen from Fort Washington and Prince George's, opposite the Navy Yard; and in ten minutes after the dogs were thrown into cover, we had a gallant red fox on foot, and about twenty couple at him. He doubled and circled for an hour, showing himself three or four times to every horseman of the hunt. At length he broke away in the direction of Bladensburg, but was compelled to run short, in cover, about half way to that place. At the moment when we expected him to give in, a large bull or mastiff fell upon the hounds, worried and drove them back. The consequence was, that the fox got a lead of twenty or twenty-five minutes, and went down the wind some seven or eight miles, to oxen creek, opposite Alexandria, where he was lost or killed in the low ground near the river. The chase was a good one, and we returned home much pleased with our morning sport.

Fox Hunting in Pennsylvania.

Greensburg, Pa., March 14.

The bells rang their merry peals—a thousand horns sounded ten thousand discordant notes—rattles, boys, men, women, and children, were in motion—and at 8 o'clock, on Friday last, the hunt commenced. Every thing proceeded well, and about one o'clock the inner line was formed, on the farm of

Isaac Shuster, five miles north of town. Many foxes were enclosed, and the business of death and destruction was soon begun and ended. Ten foxes taken in the ring—twelve were taken, (as we are informed,) from under the barn on the ground, after the multitude had retired—three were caught under a hay stack, and three in an old log, and six or eight concealed themselves in a log pile. With those that were killed previous to the formation of the outer circle, it is supposed that the number killed and taken prisoners in thè ranks of poor Reynard, was little short of forty.

Killing a Wolf on the Neva.

The last number of the London Quarterly Review says—

"We remember, many years agó, two Englishmen fixing iron runners to a Russian sledge, with which, after rigging it with a mast and sail, they started upon the Neva, and darted along at the rate of twenty-two miles an hour. Having, in their progress, observed a wolf crossing on the ice, they steered directly towards it, and such was the velocity of the sledge, that it cut the animal in two. They had no doubt, that with a double quantity of canvass, they could have nearly doubled the velocity."

MISCELLANEOUS.

GEN. THOMAS PINKNEY.

[We suppose, says the New York Evening Post, that we commit no mistake in referring to Gen. Thomas Pinkney, the subjoined passage from the first number of the Southern Review.]

"Before and just after the revolution, many, perhaps it would be more accurate to say most, of our youth of opulent families, were educated at English schools and universities. There can be no doubt that their attainments in polite literature were very far superior to those of their cotemporaries at the north; and the standard of scholarship at Charleston, was consequently much higher than in any other city on the continent. We have still amongst us a venerable relic of that cultivated and heroic age, whom we may single out without an invidious distinction, and to whom we gladly avail ourselves of this opportunity to offer a tribute justly due to such a union, in one accomplished character, of the patriot, the gentleman and the scholar—of the loftiest virtue, exercised in all the important offices and trying conflicts of life, with whatever is most amiable and winning in social habitudes, in polished manners, and an elegant taste. To add, that he is now crowning the honours of his useful and blameless life with a blessed and venerated old age, is only to say, that he has received the sure reward *pure et eleganter actæ ætatis.* But there is something melancholy in the reflection that the race of such men is passing away, and that our youth are now taught to form themselves upon other models. These improvements, with so many more, are beginning to spring up and blossom with great freshness and luxuriance about the favoured city of Boston, our western Florence, in which industry has been the willing tributary of letters and the arts, and which is, throughout all its institutions, its character, and its pursuits, one great monument of what commerce has done to civilize and adorn life."

COAL.

It has been aptly said, heretofore, that this glorious state of New York contains, or is susceptible of producing, all that can contribute to the comfort of man, except coal.

We rejoice, however, to be enabled to announce to our readers, that strong indications now exist in different directions, that in this essential article we shall also find ample supplies within our borders, viz: in the vicinity of Poughkeepsie; on the Cayuga lake near lake George, north of Ticonderoga, about seven miles west of lake Champlain; and, lastly, in the vicinity of the great river Sable, in Essex county, about three miles south of the Russian iron works, and the rail-way and Hopkinton roads in contemplation.

Samples have been exhibited from most, if not all those places, in this city, within a short time. The last was publicly exhibited the week past, by Judge Finch, residing on the Sable, and living on Mr. Montgomery's land, of which he is the agent. This sample is adjudged even superior to the Schuylkill coal, approaching the famous Kendal coal in Ireland. A short time will settle the great question, as the Judge returns this day with the intention of immediately transmitting supplies.

[*Albany D. Adv.*

TABLE OF DUTIES.

A Statement, exhibiting the Duties which accrued on Manufactures of Wool and Carpeting, Cottons, unmanufactured Wool, Sail Duck, Spirits, Molasses, Hemp and Bar Iron, for the years ending 30th of September, 1821-'22-'23-'24-'25-'26-'27.

Years.	Woollens.	Carpets.	Cottons.	Unmanufactured wool.	Sail Duck.	Spirits.	Molasses.	Hemp.	Iron rolled.	Iron hammered.	Total.
1821,	1,870,150	- - - - -	1,885,458	- - - - - - -	64,999	1,490,619	452,807	129,283	56,534	250,313	6,200,168
1822,	3,175,994	- - - - -	2,675,930	68,370	150,019	1,934,735	599,120	267,116	141,966	396,039	9,409,289
1823,	2,094,212	- - - - -	1,947,482	60,478	68,696	1,572,329	650,390	173,603	146,247	435,420	7,148,857
1824,	2,294,292	38,101	2,065,779	73,491	121,191	2,281,856	655,033	154,125	165,468	340,171	8,189,490
1825,	3,758,452	167,129	3,165,955	134,264	88,487	2,006,522	626,222	134,430	116,495	430,081	10,628,047
1826,	2,798,128	184,285	1,979,200	122,487	134,948	1,400,687	691,180	151,203	130,051	408,127	8,003,296
1827,	2,948,956	190,730	2,351,269	105,316	119,676	1,390,356	668,113	175,990	237,170	391,146	8,578,722

An Irish counsellor being questioned by a judge, to know "for whom he was concerned," replied as follows: "I am *concerned*, my lord, for the plaintiff, but I am *employed* by the defendant."

WELL-BORER.

Mr. Skinner,

Sir—A native of Bamberg, (Germany,) assures me that a plan, similar to that of boring holes for posts in this country, is adopted for digging wells in Germany; and, he adds, he has seen them at work by a horse-power. Should they be adapted to this country, I should hope for their adoption. Bamberg is on the Rhine, not 300 miles from Rotterdam. The Consul for the United States, at that port, would render a general service by obtaining information on the subject. If the representation is correct, Rotterdam is the ordinary channel for commerce up the Rhine, and thence any machine or model, could be shipped to the United States.

Amphicon.

TOBACCO.

Much has been said in praise and blame of this singular luxury. "In the "Morrow of Compliments," (London, 1654,) we meet with the following quaint verses in praise of tobacco:

Much meat doth gluttony procure,
To feed men fat as swine;
But he's a frugal made indeed,
That with a *leaf* can dine.

He needs no napkin for his hands,
His fingers' end to wipe,
That hath his kitchen in a box,
His roast meat in a pipe.

RAPID VEGETATION.

Some English peas, brought out by the English brig Catharine McDonald, from Liverpool, were planted by Mr. John Cooper, of St. Simons, (Geo.,) on the 10th of January, and on the 27th of February, that gentleman presented the captain of the brig with a peck of fine green peas from the same seed.

RECIPES.

TO CLEANSE SILK AND OTHER GOODS.

Grate raw potatoes to a fine pulp in clean water, and pass the liquid matter through a coarse sieve, into another vessel of water; let the mixture stand till the fine white particles of the potatoes are precipitated, then pour the mucilaginous liquor from the fecula, and preserve the liquor for use. The article to be cleaned, should then be laid upon a linen cloth on a table; and having provided a clean sponge, dip the sponge in the potato-liquor, and apply it to the article to be cleaned, till the dirt is perfectly separated, then wash it in clean water several times. Two middle-sized potatoes will be sufficient for a pint of water. The white fecula will answer the purpose of tapioca, and make an useful nourishing food with soup and milk, or serve to make starch and hair-powder. The coarse pulp, which does not pass the sieve, is of great use in cleaning worsted curtains, tapestry, carpets, or other coarse goods. The mucilaginous liquor will clean all sorts of silk, cotton, or woollen goods, without hurting or spoiling the colour. It is also useful in cleaning old paintings, or furniture that is soiled. Dirty painted wainscots may be cleaned by wetting a sponge in the liquor, then dipping it in a little fine clean sand, and afterwards rubbing the wainscot with it.

TO STOP CRACKS IN GLASS VESSELS.

The cracks of glass vessels may be mended, by daubing them, with a suitable piece of linen, over with white of egg, strewing both over with finely powdered quicklime, and instantly applying the linen closely and evenly.

THE FARMER.

Baltimore, Friday, March 28, 1828.

☞There are few subjects more important to the agriculturists of the country, than the system for supporting that unfortunate portion of the human family, who are utterly destitute of the means of subsistence, and who, being rendered physically incapable of self support, by reason of disease or natural deformity, must be sustained, through a wretched existence, by a tax upon the community at large. Few questions of political economy, can be more interesting than the *causes* which have a tendency to increase this publick burden, and common humanity dictates, that the best possible system should be devised for lessening the number of paupers, and for meliorating the condition of those whose horrible fate it is to have been subjected to the condition of dependence on public charity. To an understanding of this subject, which concerns every farmer of the state—to probe the sources of the evil, and to mitigate its effects, it is first necessary to collect the facts connected with the question; and with that view, we addressed, some weeks since, in the most respectful terms, a circular letter to the clerks of the several counties, who are, in all cases, we believe, except Baltimore county, the clerks, also, of the Levy court, and as such, are supposed to have in their possession, the returns of the trustees of the poor in their respective counties. In these letters, we requested simply to be favoured with a statement of the *number of paupers* supported at the *public expense*, whether in, or "out doors" pensioners, stating the number of male and female, and coloured persons, and the average expense of each per aunum to the county. It was not easy to foresee what views of the subject might grow out of the facts to be collected, and the modes in which such facts might be turned to the public benefit; but it was very easy to see, that the facts would, of themselves, be curious and useful in the hands of the political economist and legislator. The information to be thus derived, in regard to Maryland, and the commentaries and propositions that might result from it, would probably apply to many other states in the union. and uses might thus be made of it, of extensive bearing and influence, to justify the space it occupies, whilst the facts would teach a lesson of no trifling import, as to the operation of our institutions, and exhibit the actual condition of our population in an interesting point of view. We are happy to acknowledge, that many of the gentlemen referred to, have gratuitously answered the call with as much promptness as if it had been strictly within the letter of their duty, and we doubt not, that the remainder will, in the same spirit, when their leisure affords an opportunity. We respectfully re-invite their attention to the subject. The difference of expense in some of the counties in this state, is striking; but we reserve, until we get in all the returns, the reflections to which they may give rise, remarking only, here, that the matter is not arranged, in its details, by any legislative act of the *state;* it is governed by local regulations, being a *county* business, under the supervision of the Levy court. Hence the difference in the manner of providing for the poor, and the results as to the number and the expense in each county.

☞In some of the New England states, the poor are so managed, on some small farms, as to produce an income beyond the expenses of sustaining them.

Alleghany County.

Sir, *Cumberland, Feb.* 28, 1828.

Your favour of the 20th inst. was duly received, and I have attended to its contents.

The number of poor in our county for the last four years, has been about twenty-four, which are supported by the county; the average expense is nearly $27.00. I think the increase is nearly in proportion to the increase of population. The number of poor in the year 1822, was twenty-two; in 1826, it was twenty-eight; in 1827, they decreased to twenty-five. They are pretty nearly divided between male and female, and some part are orphan children. I know of but one coloured person now on the list of pensioners.

I am, respectfully, your humble serv't,
AZA BEALL.

Somerset County.

Sir, *Princess Anne, Feb.* 28, 1828.

In reply to your letter of the 20th instant, I can state that I have examined the books of the Trustees of the Poor with their clerk, for the last five years; as that was the only means of obtaining any satisfactory information on the subject of your inquiries. The number of persons supported wholly, or in part, by the public in Somerset county, averages 105 annually, for that time, (say the last five years.) The sum annually levied for the use of the poor varies—the average sum, however, is about $2600. This sum is applied to those persons who are stationed in the poor-house and out-pensioners, (i. e. persons who are entirely or partially supported out of the above sum, and not resident in the poor-house.) I am unable to state, with any degree of accuracy, the number as to sex, but suppose that about two-thirds are females. As regards the increase in proportion to the population of the county, I can safely say that the increase of paupers has been greater than the population for the last thirty years. The number of persons of colour annually, is about ten on an average. The above sum of $2600 discharges the claims of all kinds on account of the poor—such as the bill for fuel, overseer's salary, and physician, &c. Yours, &c.
GEORGE HANDY.

[Average expense, $24.75.]

Washington County.

Sir, *Hager's-Town, March* 5, 1828.

On the receipt of your letter of the 20th ult. I applied to the Trustees of the Poor for the information you require, and have this day received from them the enclosed statement, which I hope may answer your purpose.

If this statement should not be as comprehensive as you wish, I will very cheerfully endeavour to procure another, which may be more satisfactory.

I shall be pleased, at all times, to aid you in your inquiries in this section of country, and am,

Very respectfully, your obed't serv't,
O. H. WILLIAMS.

The poor, supported in the Washington county Alms-house for the last 6 years, have been (without any material increase or decrease,) 66 persons each year, of the following descriptions:

26 white males.
21 white females.
7 coloured males.
3 coloured females.
3 white male children.
3 white female children.
2 coloured female children.
1 coloured male child.
—
66
At an average of $33 } cost per ann. for provisions, clothing, bedding, fuel, &c. of the best descriptions.
——
198
198
——
$2178

CHRISTIAN FECHTIG,
Overseer of Washington co. Poor.
Hager's-Town, March 5, 1828.

Dorchester County.

Amount of the number of Persons supported at the public expense in Dorchester county, for the years 1823-'24-'25-'26-'27.

	white males.	white females.	col'd males.	col'd fem's.	total
1823,	12	10	4	5	31
1824,	15	14	4	2	35
1825,	20	18	8	3	49
1826,	16	22	7	5	50
1827,	19	19	8	7	53

Those are persons supported within the walls of the alms-house—the average cost is $15 each.

OUT-PENSIONERS.

	white males.	white females.	col'd males.	col'd fem's.	total
1823,	33	41	2	2	78
1824,	28	51	4	1	84
1825,	23	70	3	2	98
1826,	27	63	4	3	97
1827,	21	47	1	2	71

Those are out-pensioners not within the alms-house—the average cost of each is $5.

Caroline County.

J. S. Skinner, Esq. *Denton, Feb. 29th*, 1828.

Dear Sir,—The following table exhibits the number of the poor, their sex and colour, who have been, and are, supported at the expense of Caroline county, for the last three years, and the average cost of each individual per annum:

	White males.	White females.	Negro males.	Negro females.	Totals	Average cost of ea. pee an.
In 1825, .	30	26	2	4	62	18.00
In 1826, .	31	33	4	4	72	20.00
In 1827, .	28	31	3	4	66	19 00
Totals,	89	90	9	12	200	at 19.00 ea

I would have enlarged this table with the number, sex and colour of the poor, supported at the expense of the county, from the year 1820, had I been able to collect sufficient data to make the statement any thing like correct. It is believed, that the population of the county, has decreased in a small degree, but I do not conceive, that the decrease would materially vary the proportion of paupers to the population of this county for the last seven years.

I believe the above statement is as nearly correct as it is possible to make it. With a tender of any future service, which it may be in my power or province to render you,

I am, dear sir,
Your very respectful
Obedient servant,
JO. RICHARDSON.

Talbot County.

Dear Sir, *Easton, March 8th*, 1828.

Since I last wrote you, I have obtained a view of the books and accounts kept by the trustees of the Alms-house in this county, and have found them to have been kept in such manner as not to exhibit the information you wish to obtain. At this time there are in the Alms-house, 42 paupers, viz:

Whites—men, 7—women, 12—boys, 6—girls, 2; 27. Blacks—men, 2—women, 8—boys, 3, girls, 2; 15—42.

From the best information I could obtain, it is supposed that the average number of paupers supported in the Alms-house, is 40; and taking the expenditures of the last five years, as reported to the Levy court as the data, the average cost of each pauper per year is $71.61, including the produce of the farm. The average of the last five years' levies on the county, for the support of the poor, is $2,469.76 per annum.

The proportion of paupers to the population of the county, cannot be ascertained.

Yours, very respectfully,
J. LOOCKERMAN.

Counties.	No. of paupers.	Average cost.	Population in 1820.	Pro. of paup. to population
Alleghany	24	27.00	8,654	1 to 360
Somerset	105	24.75	19,579	1 to 186
Washington	66	33.00	23,075	1 to 350
Dorchester	124*	22.00	17,755	1 to 135
Caroline	66	19.00	10,041	1 to 152
Talbot	42	71.61	14,389	1 to 343

*Of these, seventy-one are what are termed out-pensioners; that is, they reside where they please out of the alms-house, and have levied for them only five dollars each per annum. The same may, perhaps, be said of Somerset, and others. The other gentlemen, to whom applications have been made, will particularly oblige us by sending their replies as early as convenient.

☞The morning papers state, that on the first and second days, yesterday and the day before, of the books being opened, five thousand shares were taken in the *Baltimore and Susquehanna* Rail-road stock, and that no doubt is entertained, that the whole amount will be taken within the time allotted. "It is pleasing," says the Editor of the Chronicle, always alive to the local interests of our city, "to witness the prevalence of a spirit of internal improvement, which does not confine itself to a single subject, but embraces within its scope, every object calculated to advance the best interests of Baltimore. Now, that this feeling is fully excited, there is nothing to fear for the prosperity of our city, notwithstanding the jealousies, which, springing up in various directions, would deprive her of the great advantages of her unrivalled situation."

It would be unavailing, if it were just, to deprecate, on the part of other states and cities, that spirit of rivalry or jealousy, that would aggrandize themselves at our expense. It is but another word for self-interest—that universal principle, that leads men and communities, all over the world, to prefer their own welfare and happiness to that of others. Let us rather imitate the zeal which animates that principle, and the sagacity which discovers the best means of applying it with most effect, than decry the existence of an impulse, as deeply seated as the love of existence itself.

Let us make up our mind that Philadelphia, Washington, Richmond, &c. &c. will take from us and appropriate to themselves *all they can*—fools if they did not—that is the only safe principle to set out upon, and all schemes of improvements based upon any other supposition, will be found to stand on a "sandy foundation." When this principle of self-aggrandizement is pushed to the degree of denying to us what they cannot use, then it degenerates into a despicable dog-in-the-manger policy, to be denounced by all liberal men. It is the narrow minded jealousy towards Baltimore, which too often manifests itself in the councils of our *own state*, that is worthy of all censure. How can we, with any face, complain of other states and cities attempting to arrest the natural growth of our city, whilst the *delegates of our own people*, perpetrate towards us, the crying, shameful injustice of keeping our 70,000 inhabitants on a level, in point of political power, with 4000 in Calvert county, or 2000 in Annapolis, in all deliberations and measures for the common good?

Mr. S. W. Smith has just sent to his Spesutia farm, a pair of cart wheels, well worthy of the attention of all good husbandmen. The tread of each wheel is exactly *eleven* inches. The rim consists of *three* tiers of fellowes, duly secured by iron screw bolts, but without an iron band. Wheels of the same kind have for some time been used on the Orange farm. They are there considered as strong and as durable as any wheels whatever. They at all times run lighter and more easily than the common ones. But their principal recommendation is the peculiar facility with which they pass over soft and miry ground with heavy loads. They, like rollers, level their path without ever sinking at all. Wet as the fields have been during the last winter, the carters at Orange farm have been able, in virtue of these wheels, to continue their hauling of manure into them without any interruption or difficulty from the miry condition of the ground.

These wheels cost 35 dollars and were made by Mr. Lynch, whose shop is about a mile from Baltimore, on the Havre de Grace turnpike road, opposite to Murray's tavern. They can be made to the order of any person who may give him the dimensions of the end of the axle-tree of his cart.

☞A farm of 1700 acres, at the mouth of Elk-river, for sale. Inquire at the office of the American Farmer.

☞Amongst the various mediums which have been devised for facilitating the transportation of goods and passengers, the one advertised below is not the least remarkable.

The distance between Baltimore and Alexandria, by *land*, must be not more than forty-five miles—the course by water not less than two hundred. By land, there are many stages daily, and wagons plying constantly—yet *sailing* packets continue to run from one point to the other.

This steam boat is, we hear, particularly adapted to carrying *freight*, and the *passage* money for travellers by her is the same as in the stage. It cannot fail, that the steam-boat, whose time of arrival at each place respectively, may be calculated to an hour, will supersede the wagons and sail-boats; and if so, it goes far to shew that, when they come to be simplified in their structure, and to be built and worked throughout with the utmost plainness and economy, they will be employed as boats of transportation for *produce and market stuff*, on all our water-courses, as suggested by us last summer, in especial reference to the Eastern Shore of Maryland. Meetings ought to be called, associations formed, and committees appointed, on all our rivers, to take the subject into consideration. We have reason to suppose that a boat of six or eight horse-power, to carry fifty tons, and to be navigated by three or four hands, drawing two feet water, might be bought complete for two thousand five hundred, or three thousand dollars. We think ten years, and then talk as many more, and when improvements are forced upon us by their obvious convenience and necessity, we say why, I wonder we did not put this in operation before! How vastly useful and convenient it is!!!

WASHINGTON, ALEXANDRIA AND BALTIMORE STEAM-PACKET LINE.

The steam-boat Fredericksburg, captain Benjamin Jenkins, will leave here from the lower end of Commerce street wharf, every Saturday, at five o'clock, P. M., precisely, passing up the Potomac on Sunday. Returning, will leave Washington every Wednesday morning, at five o'clock, and Alexandria at seven o'clock; passing down the Potomac on Wednesday, will land, or receive passengers, going or coming, from any of the following places, viz:

Sandy Point, Nangenoy Store-house, Ledlow's ferry, Piney Point, on the Maryland, and at the mouth of Quantico river, Dumfries, Boyd's hole, Bluff point, Lower Machoduc creek on the Virginia side of the river.

The company have provided a good substantial slate-roofed warehouse, and will *receive* and *pay freight* on any goods from the eastward, or elsewhere, at any time during the week.

The excellent accommodation the boat affords, for passengers, whether ladies or gentlemen, her great speed, and the fine scenery of the country through which she passes, conduce to render travelling by her very pleasant.

Goods will be transported at the rates charged for their carriage in the sailing packets, and as the Potomac bridge presents an obstacle to the boat going to Georgetown, such as may be destined there, will be delivered at no greater expense than would have to be paid, if the same could be landed at that place. The expedition and certainty attending this mode of conveyance, offer such inducements to merchants, as will, it is hoped, ensure their patronage. For freight or passage, apply to the captain on board, or to

CHARLES WORTHINGTON, Agent,
Lower end of Commerce street wharf.

EASTMAN'S MANUFACTORY OF AGRICULTURAL IMPLEMENTS,

No. 36, Pratt street, Baltimore.

On hand, a supply of superior cast steel *Axes*—also, *Mattocks* and *Grubbing Hoes* of cast steel; also, improved patent *Cornshellers*, that can be recommended, price $15. Also, Brown's vertical *Wool Spinners*, embracing every thing desirable in an implement of the kind for family use. Also, the subscriber's patent cylindrical *Straw Cutters*, which have never been equalled in any country for chaffing all kinds of long forage with ease and facility, such as hay, corn stocks, cane tops, &c. &c. —the machinery permanent and not liable to get out of order; price of small size, including extra knives, $55; the second size, with extra knives, $61. Also, West's patent spring *Washing Machines*, can be highly recommended; price $15. Also, a complete assortment of *Gideon Davis' highly improved Patent Ploughs*, made of the best materials; Cultivators, Swingle Trees, double and single; Shovels and Spades, &c. &c.

☞All orders by mail post paid, will receive prompt attention. JONATHAN S. EASTMAN.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Tobacco.—Scrubs, $4.00 *a* 7.00—ordinary, 2.00 *a* 4.00 —red, 4.00 *a* 5.00—fine red, 5.00 *a* 6.00—wrapping, 6.00 *a* 12.00—Ohio yellow and red, 4.00 *a* 7.00—yellow, 7.00 *a* 20.00—Virginia, 2.50 *a* 6.00—Rapahannock, 3.00 *a* 3.50—Kentucky, 3.00 *a* 5.00. Inspections last week, 331 hhds. Maryland, 53 hhds. Ohio, and 7 hhds Virginia.

Flour—white wheat family, $6.00 *a* 6.25—superfine Howard-st. 4.50 *a* 4.62½; city mills, 4.50; Susquehanna, 4.25—Corn Meal, bbl. 2.50—Grain, best red wheat .80 *a* .84—best white wheat, .90 *a* .95—ordiny. to good, .75 *a* .80—Corn, .33 *a* .34—Rye, .42 *a* .44—Oats, .21 *a* .23 —Beans, .80 *a* 1.00—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.25—Timothy, 2.50 *a* 3.00—Barley, .60 *a* .6—Flaxseed, .75 *a* .80—Cotton, Virginia, .9 *a* .9½—Louisiana, .10 *a* .13—Alabama, .9 *a* .12—Mississippi, .10 *a* .13—N. Carolina, .9 *a* .10½—Georgia, .9 *a* .10½—Whiskey, in hhds 1st proof, .20—in barrels, .22—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $260—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6.00 *a* 6.50; do. do. trimmed, 6.50—Herrings, No. 1, bbl. 3.00 *a* 3.25; No. 2, 2.62½—Mackerel, No. 1, 5.62½; No. 2, 5.37½; No. 3, 4.50—Bacon, hams, Balt cured. .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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AGRICULTURE.

SHEEP HUSBANDRY.

Dear Sir, *Ravensworth, March 25, 1828.*

I have thought it not impossible, that in the present depressed state of agriculture, the following estimate of the profits of a farm devoted exclusively to sheep, might be of service to some of your numerous readers. I am not, I think, mistaken, in supposing, that at the price at which corn and wheat now sell, they cannot be advantageously cultivated on lands yielding less than fifteen bushels of the former, and eight bushels of the latter per acre. And yet how many thousands of acres, both in Virginia and Maryland, are either thus employed at an expense very far exceeding their production, or are abandoned as wholly unfit for any agricultural purpose whatever!

My own experience has satisfied me that lands of this description, even of the poorest quality, may (if broken and tolerably well watered,) be advantageously converted into sheep-walks; and by a judicious course of husbandry, be made not only to produce a fair interest on the capital invested, but to furnish within themselves ample resources for their own renovation. To point out the means of accomplishing this desirable change is the object of the following estimate.

Very respectfully, yours, &c.

WM. H. FITZHUGH.

J. S. Skinner, Esq.

Estimate for a Farm devoted exclusively to Sheep.

A farm, containing 1000 acres of land, under a good fence, having a dwelling house and all necessary out houses, together with two milch cows, two work horses, (or four oxen,) two breeding sows, one thousand sheep, a light wagon, cart, gear, ploughs, barrows, hoes, spades, axes, and all other necessary utensils, may very readily be purchased in convenient locations, either in Maryland or Virginia, for $12,000; which if it yields only six per cent. on the purchase money, or $720 nett per annum, would be a more profitable and safe investment than can be made in any stock in the U. States. But it is susceptible of demonstration, that with tolerably judicious management, it may be made to yield nearly double that amount, and be itself annually improved in value

The following is the system of management, which, after long experience, I have no hesitation in recommending.

The farm and every thing appertaining to it, except the sheep, being secured at the beginning of the year, the first operation should be to throw it into three divisions, viz: two fields for grazing, of 350 acres each, and one of 300 acres, comprising the woodland, garden, house lots, and about 100 acres of open land for cultivation and improvement. This arrangement and the necessary fences may be completed during the freezing and wet weather of January, February and March; while the dry and open weather of those months should be devoted to ploughing and barrowing about 40 acres of arable land; one half of which may be sown in oats, for a crop, by the end of March, and the other half planted in corn between the 1st and 15th of April.

These operations being completed, there will be time enough before the corn requires cultivation, to plough, harrow, and sow down in oats, ten acres more of the arable land for the purpose of improvement, by folding the sheep and cattle in them during the summer and fall; after which, the chief occupation of the hands till harvest, will be the cultivation of the corn and attention to the sheep, which ought to be purchased and brought on the farm as early in May as possible, and together with the cattle be folded every night on the oat grounds prepared for them, in a pen containing about half an acre of land.

As this business of folding is to be the great source of improvement and profit on a sheep farm, it ought to be managed with the greatest care. No danger need be apprehended to the sheep either from dogs or disease, provided cattle be always folded in the same pen with them, and care be taken never to put them up till after sun-set, and always to turn them out before sun-rise. With a view to the rapid and permanent improvement of the soil, I consider the following the best possible mode of conducting this part of the system.

When the first fold is sufficiently manured, (which will be in eight or ten days,) the pen should be removed, the ground ploughed, harrowed, and sowed down in oats, and ruta baga turnips; and the same process be pursued with each succeeding fold, till the first of August; care being taken in the mean time to turn in all that portion of the land prepared for folding, on which the oats have ripened before the folds have reached them.

On the 1st of August, the sheep should be divided into two flocks—one containing the breeding ewes and stock wethers; the other consisting of the lambs and such old ewes and wethers as it may be desirable to prepare for market. At this time too, the folds should be brought back to the ground first penned and sowed in oats and turnips, which will now be covered with a fine growth, and be ready for a second penning. In performing this operation two pens must be employed for the two divisions of sheep; the lambs and the muttons being permitted to occupy each pen, in advance, about four days, and the main flock following for about the same time.

Lands thus prepared will be brought to the highest possible state of fertility. Such as are penned before the first of September, may be sowed down in turnips, for the use of the sheep during the winter and spring; and the subsequent pennings of September, October, November and December, may be put in rye, wheat, kale, Hanover turnips, or any thing that vegetates quickly, for spring grazing. A piece of the poorest land on my farm, treated in this way, (except that wheat, as a crop, was substituted for turnips, oats, &c.) fattened me fifty of the best muttons I ever saw; yielded 22½ bushels of wheat to the acre, and is at the end of three years, still covered with a fine coat of orchard grass.

We have now arrived at that period of the year in which the sheep are to be put into winter quarters. For this purpose, the fatted sheep ought to be sold off as soon as possible, the breeding ewes put to themselves in one of the grazing fields, and the rest of the flock in the other. Each parcel should be brought up at night into a small lot near the house, provided with uniform shelters, and there fed, both night and morning, on hay, corn tops, blades, or turnips. As the ewes begin to yean, which ought to be in March, they should be separated, or permitted to run on the ground prepared for them during the preceding fall; and their condition will be very much improved at this time by feeding them night and morning with oats in the straw, cut up to a proper degree of fineness.

The operations of the next and every subsequent year, will differ from the first only in this, that instead of breaking up new ground for an oat crop, oats may always be put in the twenty acres of corn land and the ten acres of manured land of the preceding year; and the last should always be sowed down at the same time in orchard grass and clover. Ten acres of highly improved grass land would thus be added every year to the resources of the farm, until at length its quantity would probably justify the introduction of a few choice brood mares, as another source of profit, on the farm.

When the hundred acres first reserved for cultivation, shall, by this process, be converted into grass land, a farther encroachment, to the extent of fifty acres, may be made on each of the grazing fields, and the same course of husbandry be pursued on them as on the first division.

The only permanent labourers requisite for such a farm as this, would be a man, his wife, and a boy old enough to plough. In shearing time and harvest, it might be necessary, perhaps, to employ additional labour.

The above system is adapted to the poorest description of high and broken lands in our country, and may be applied to a farm of any size, from two hundred to some thousand acres. I have now five farms, stocked with from two to five hundred sheep each, undergoing this process; and after an experience of many years, and even at the present low price of wool, I have no disposition to change my system.

The following I consider a fair estimate of the product, expenditure and profits, of a farm of 1000 acres, thus cultivated.

PRODUCT.

To be used on the Farm.

20 acres of corn manured in the hill, at 3 barrels per acre, ...	60 bbls.
20 acres of unimproved land in oats, at 5 bushels per acre, ...	100 bush.
10 acres of manured land in oats, at 20 bushels per acre, ...	200 bush.
5 acres of turnips, at 200 bushels per acre, ...	1000 bush.
Hay, veal, hogs, &c. &c.	

FOR SALE.

The wool of 1000 sheep, estimated at 4 lbs. (in the dirt,) per head, .	4000 lbs.
An increase of 400 head of sheep, after making allowance for casualties, the use of the farm, &c. . . .	400 head.

Supposing every thing made on the farm, except the wool and the increase of the sheep, to be consumed, we shall have for sale—

4000 lbs. of wool in the dirt, at 25 cents per lb.—equal to		$1000
400 lambs and muttons, at $1 50 per head,		600
Gross sales,		$1600
From which deduct—		
For permanent and occasional labour,	$200	
For contingencies, ...	200	
		400
Nett profit,		$1200

Being ten per cent. on the original investment. I will only add that this amount might, of course, be very much increased, by improving the quality of the wool. W. H. F.

AGRICULTURAL SCHOOLS.

Addressed to the editor of the New York Farmer, by Professor Eaton, of Troy.

Sir.—I hope you will admit one correspondent, who may occasionally express his dissent, or at least his doubts, in some cases, where the whole world seems to be hurried on in the same direction, as if by an irresistible torrent. Every one admires the Hoffwyl school, established by Fellenberg. Few, however, know that Fellenberg himself has totally abandoned, *in practice*, the plan with which he commenced. *Students do not labour either on the farms, or in the work shops; excepting a hired set, merely to keep up the appearance of labour.* Of this, I have received assurances, which I cannot question. I presume there are at least one dozen persons in the city of New York, who will convince on that I am not misinformed; and I venture to add this statement, that I have tested, by numerous trials the *labouring plan of education, and that I do not believe that it ever did, or ever will succeed.*

After abandoning all expectation of success, and becoming convinced, that the labouring part of the system adopted at the Hoffwyl, and other schools, was totally useless, I adopted the following measures: I obtained permission of the mechanics in Troy and Lansingburgh, for the students of Rensselaer school, to inspect their various operations, and to receive instruction in their work-shops. This I have found to be a most efficient measure, after a trial of three years. Students are always delighted thus to see the applications of the experimental sciences to the useful arts. I have no knowledge of any measure which excites so much zeal in the cause of science, or which proves to be of so much substantial benefit to the learner. Being encouraged by success in this attempt, several good farms, on Mr. Van Rensselaer's manor, were put on the Rensselaer school list, as places for agricultural instruction. The farms were all occupied by tenants; but the tenants were to be paid by deductions from their rents, for any damage or inconvenience suffered from the school. These were, and still continue to be, visited by the students very profitably. Every student learns practical surveying on these farms. All take portions of the soil of various fields, analyze them carefully in the laboratory, compare the results with the kinds of vegetables which grow best and worst on them, &c.

By these measures, which it will not be proper to give in detail at this time, students learn the results of mechanical and agricultural operations, which are made in good earnest with a view to profit. For example, instead of half tanning a skin, or two, in a contracted shop, as at Fellenberg's school, we see at Geary's factory, ten thousand hides at once under the operation of the best manipulations which art and science can furnish. Instead of a bungling botch in making metallic instruments, with a scanty set of tools, we may see at Hanks' establishment, the nicest graduated instruments manufactured, and both light and heavy castings made upon the best modern plan. I might enumerate more than fifty trades, which we have on our school list, all of which are pursued *in earnest*, to the best advantage. The instruction received from these artists, is as superior to that which the *sham-shops* of Fellenberg afford, as the strength of a *real* elephant is superior to that of a *sugar-model* from the toy-shop.

Students may learn the physiology of vegetation, by trials upon plants in a small way; but they can never learn to conduct the labours of a farm, but by labouring *in earnest*, year after year, and watching the progress of real agricultural operations. They may learn the scientific principles, upon which the operations of every artist depend; but an apprenticeship *in earnest*, is essential to make an artist. They may work in the laboratory until they acquire nice accurate habits, which fit them well to enter upon the course of accurate manipulations peculiar to any trade. Finally, they may learn to think accurately and justly on the nature and properties of all bodies, with which they may be concerned in life, as farmers or mechanics, by an experimental course of education. But sham-labour will never qualify them for the duties of farmers or mechanics. Yours, &c. AMOS EATON.

Rensselaer School, Troy, March 8, 1828.

(From the Pittsburg Mercury.)

DUTIES ON WOOLLENS.

Having, in my former communications, endeavoured to show, that the duty on woollens, proposed by the manufacturing committee is, with the exception of two items, more than equivalent to the duty on wool, (which was what the woollen manufacturers demanded,) and in some cases, is upwards of 50 per cent.; having also exhibited a comparative statement of the duties on woollens, as proposed by the committee and the Harrisburg convention respectively, I proceed to show how much a mechanic must pay for a suit of clothes, should the proposition of the latter prevail, over what he will pay in case the bill, reported by the committee of the present Congress, and now under discussion, prevails.

		First cost	Expenses of importation, freight, carriage, packages, exchange, &c., twenty per centum on first cost.	Merchant's profit, interest, commission, and other charges, 25 per cent. on first cost.	Duty per Harrisburg convention tariff, on 5 5-8 squa. yards.	Total cost to consumer of cloth for one suit of clothes.	Duty per bill reported by the committee of manufactures.	Total cost to consumer of cloth for one suit of clothes.	Difference of cost on each suit in favor of proposed tariff.
3 3-4 running yards 6-4 cloth, or 5 5-8 square yards, costing per square yard, 75 cents, or running		dolls. cts.	dolls. cts.	dolls. cts.	dolls. cts.	dolls. cts.	dolls. cts.	dolls. cts.	dolls. cts.
yard, sterling, ...	5s. 0¾d.	4 21	0 84	1 05	7 02	13 12	2 25	8 85	4 77
Ditto, $1, running yard, or	6s. 9d.	5 62	1 12	1 40	7 02	15 16	2 25	10 89	4 77
Ditto, 1½, " "	10s. 1½d.	8 42	1 68	2 10	7 02	19 22	5 62	17 82	1 40
Ditto, 2, " "	13s. 6d.	11 25	2 25	2 81	7 02	23 33	5 62	21 93	1 40
Ditto, 2½, " "	16s. 10½d.	14 06	2 80	3 51	7 02	27 39	5 62	25 99	1 40
Ditto, 3, " "	20s. 3d.	16 87	3 37	4 22	11 25	35 71	9 00	33 46	2 25
Ditto, 4, " "	27s. 0d.	22 50	4 50	5 62	11 25	43 87	9 00	41 62	2 25
		83 93			57 60	177 80	39 36	159 56	18 24
Average per cent.					68 5-8		46 7-8		

From which it appears that the difference of cost, which is produced by the duty on the two lowest priced cloths, is $4 77, or an average of nearly 97 per cent. on the prime cost.

On the three next prices, a difference of $1 40 or 12½ per cent. on the prime cost.

On the two highest a difference of $24 or 11½ pr. ct.

By the above statement it appears, that a mechanic, who buys a suit of clothes, of imported cloth, costing seventy-five cents per square yard, will pay, according to the Harrisburg convention, $13 12; according to the bill before Congress, $8 85, and so of all the rest. It will, perhaps, be replied, that those cloths, where the duty is heaviest, will not be imported. Admitting this, I would ask, whether the manufacturer will sell his commodity cheaper on that account, or lower his prices one cent, until domestic competition obliges him, which cannot take place in this country for many years to come. I therefore beg of some of the very zealous supporters of the measures of the Harrisburg convention, to pause a moment before they become accessary to the imposing so heavy a tax on the farmer, the mechanic, and the labourer, the real backbone and sinew of every community.

The clamour raised in favour of these high duties, is only equalled by that against the specific duty on wool proposed by the committee on manufactures. Perhaps a little explanation may be useful to enable us to account for the excessive sensibility on this latter point. It was proved before the committee, that large quantities of wool, in a very dirty state, had been imported during the last year, and invoiced so as to pass the custom-house at the lowest duty, say fifteen per cent.

The following statement shows the operation of the law as it now stands, and will, I hope, in some measure exonerate the committee, in the breast of every candid mind, from the charge of being hostile to the farmers and manufacturers, which some of their political opponents have preferred against them.

"A wool-dealer in Albany, sold to a manufacturer, 5000 pounds of Smyrna wool. The latter made it clean, and found it reduced to 2000 pounds, of the value of 20 cents per pound. He prosecuted the seller for damages, in the Supreme Court, and on trial, the defendant produced a number of witnesses, accustomed to manufacturing foreign coarse wool, who testified that the *lot in question was in the ordinary condition of wool of this description*, and the plaintiff was mulct in costs."

Now, with these facts before us, established in a court of justice, let us see the operation of the proposition of the Harrisburg convention.

During the last year, there was imported into the eastern cities, 450 tons, or 900,000 pounds of coarse dirty wool, at eight cents, and subject to a duty of fifteen per cent. That I may nothing exaggerate, I will suppose one half this quantity was passed in like manner as the above, which is attested to be "*the ordinary way*" *of being put up*—225 tons are 450,000 pounds, and would pay duty at fifteen per cent. $540

In this 450,000 pounds are contained two-fifths, or 180,000 pounds of wool, worth 20 cents here, and abroad 14, and according to the Harrisburg tariff, ought to pay 50 cents per pound duty, or . . $90,000

$89,460

The 450,000 pounds, at 8 cents, would cost 36,000. If the three-fifths of dirty wool be thrown away altogether, there will be lost 21,600, which, taken from the amount of duty saved, ... $21,600

Leaves a balance in favour of the importer, and a fraud upon the revenue of sixty-seven thousand eight hundred and sixty dollars. $67,860

Hence arises the violent opposition to a specific duty as proposed by the committee. It would operate as a check (to prevent altogether is impossible) upon the frauds which will be committed both on the farmer and the government. On the farmer, by introducing, at the lowest duty, that quality of wool which the bulk of them raise; and on the government, by mixing coarse and dirty wool with finer qualities, that it may be entered at the lowest duty. If my views of the subject be correct, I feel no surprise that foreign merchants should send their wool, fraudulently packed; but that any American citizen can be found who would either practise it himself, or connive at the practice in others, is real matter of regret and astonishment, and can only be accounted for on the supposition that thoughtlessness or party feeling, has led them into measures so pregnant with mischief, whether we consider it either in a moral or political view.

WOOL AND WOOLLENS.

Washington, March 7, 1828.

Sir,—In reply to your inquiry as to the effects of the bill reported to the House of Representatives by the committee on manufactures, in reference to wool and woollens, we hand you herewith a statement showing its operation, as contrasted with the provisions of existing laws.

We think it proper to remark, that we have calculated the duties on woollen fabrics, only at the minimum points of the proposed bill, deeming the assumption that goods would be imported varying from these points, so as to subject them to double duties, to be founded in error; because all milled cloths, suited to the actual wants and necessities of the people, might as well be imported by paying the lowest rate of duty.

It is also proper to remark that the minimum of 50 cents, affords ample protection to the manufacturers of flannel.

Respectfully,

ABRAHAM H. SCHENCK,
Matteawan, New York.
JONAS B. BROWN,
Massachusetts.
WM. R. DICKINSON, *Ohio.*

Hon. John C. Wright.

CLOTH.

First minimum of 50 cents the square yard.

Present duty of 33½ ad valorem, equal to 36⅔ per cent. or equal per square yard to		18½
Proposed duty on square yard,		16
Loss to the manufacturer by the proposed bill, on the manufactured article,		2⅓

WOOL.

First minimum—50 cents per square yard.

It will require two pounds of Smyrna wool, in the dirt, worth ten cents per pound, for a square yard of coarse cloth, viz:

Two pounds of wool, at 10 cents,		20
Duty, specific,	14	
Fifty per cent. ad valorem,	10	
Cost of wool, by the proposed bill,	—	24
		44
Present law, viz:		
Two pounds of wool, at 10 cents,	20	
Duty, at 15 per cent. ad valorem,	3—23	
Loss to the manufacturer, by the proposed bill, compared with the present, on the raw material alone,		21
To which add the loss on the manufactured article,		2⅓
Actual loss to the manufacturer of		23⅓

In other words, his condition will be worse, by 46⅔ per cent.

CLOTH.

Second minimum of one dollar per square yard.

Present duty on square yard,		36⅔
Proposed duty by the bill,		40
Gain by the proposed bill, on the manufactured article, square yard,		3⅓

WOOL.

Second minimum of one dollar per square yard.

It will require for a square yard of this kind of cloth, one and a half pounds of wool, at 30 cents, viz:

One and a half pounds of wool at 30 cents,		45
Specific duty, by proposed bill,	10½	
50 per cent. ad valorem,	24—	34½
Present law, viz:		
One and a half pounds of wool, at 30 cents,	45	
Duty, thirty per cent.	14—	59
Loss to the manufacturer on the wool alone,		20½
Gain to him on the cloth,		3½
Actual loss to the manufacturer on a square yard, by the proposed bill, of		17

or, 17 per cent.

CLOTH.

Third minimum of $2.50—*square yard.*

Present duty on the square yard,		91⅔
Proposed duty,		$1 00
Manufacturer's gain on a square yard of cloth by the proposed bill,		8⅓

WOOL.

Third minimum of $2.50—*square yard.*

It will require 1½ lbs. of wool to make a square yard of cloth, viz:

1½ lbs. of wool, cost 60 cents,		90
Specific duty by proposed bill,		10½
50 per cent. ad valorem,		49½
		$1 50
Present law, viz:		
1½ lbs. wool, cost 60 cents, is	90	
Duty thirty per cent.	33—	1 23
Manufacturer's loss on wool by the proposed bill,		27
His gain on the cloth,		8⅓
Actual loss by the proposed bill on the third minimum,		18⅔

Or 7½ per cent.

CLOTH.

Fourth minimum of $4.00—*square yard.*

Proposed duty by the bill,	do.	$1 76
Present duty,	do.	1 46⅔
Gain on the square yd. of cloth to the manufacturer by the proposed bill,		29⅓

WOOL.

Fourth minimum of $4.00.

It will require 1½ lbs. wool, worth $1, per lb: to make a square yard, viz:

1½ lbs. of wool at one dollar, is		$1 50
Specific duty,	10½	
50 per cent. ad valorem,	82—	92½
		$2 42½
Present law, viz:		
1½ lbs. wool at one dollar, is	$1 50	
Duty now thirty per cent.	49—	1 99
Loss to the manufacturer on wool by the proposed bill,		43½
Gain to him on the cloth,		29⅓
Actual loss to the manufacturer,		14

Or about 8½ per cent.

MAPLE SUGAR.

The season has now arrived for manufacturing this important, necessary and useful article, which is a production peculiar to our own state. No state in the union, perhaps, produces so large a quantity of sugar-maple, as Vermont; and considering our inland situation, it may be justly esteemed one of the signal blessings of a beneficent providence. It affords to the farmer an opportunity to obtain, by his own industry, independent of any other portion of the globe, a supply of sugar for his family, for the purchase of which, he would otherwise have to draw from the products of his labour in the field, and which he now acquires without trespassing, to any considerable degree, upon the claims of any of the other branches of his farming business. Besides, many farmers find, in the manufacture of maple sugar, no inconsiderable sources of revenue, in addition to the amount of the article which is required for their own consumption. All their surplus finds a ready market, and at a price which affords a decent profit, thus enabling them to turn their labour, during a season of the year when little else can generally be done upon a farm to advantage, to some good account. This should induce those who have sugar-orchards in our country, to furnish themselves with a sufficient supply of those materials necessary for an advantageous improvement of the sugar season. Much depends on a close and seasonable attention to those points, both as to the quality and quantity of the sugar which may be made, and of course as to the value of the manufacture. The buckets should be well cleansed and kept clean through the whole season. Great care should also be taken to keep the sap clear of all manner of dirt and filth. Then, with an ordinary share of skill in reducing the syrup to sugar, it may be made nearly as white as the loaf-sugar, an object surely worthy of the careful attention of all who are engaged in this *sweet* employment. [*Vermont paper.*

MANUFACTURE OF COTTON IN THE SOUTHERN STATES—NO. XX.

J. S. Skinner, Esq. *March* 22*d*, 1828.

Dear Sir,—You have much reason to congratulate yourself on the service you have rendered to your country by your remarks, published at various times, in your useful paper, on the employment of slaves in manufactures in the southern and western states. There are few individuals, even in the *northern* states, so hardy as to deny to the blacks, the capacity requisite to fabricate all the heavy goods which can be made by machinery, out of cotton. A few years ago, a northern man would have ridiculed the idea of a slave becoming an *operative* in a cotton factory. Now it is in contemplation to employ great numbers of them in this way, in Virginia, North Carolina, South Carolina, and in most of the south western states. In Tennessee and Kentucky, they have been long known as the best hands in the factories where hempen goods, to a great amount, have been manufactured; and it has been correctly remarked, that the owners of establishments who have used that species of labour, have almost uniformly become wealthy. It is with much satisfaction, that I notice, in a Charleston paper, a proposition to establish factories for the purpose of making bagging out of cotton, instead of giving vast sums to Europe for inferior articles made of hemp. The oath of Mr. Marshall, before the committee of Congress, establishes the fact, that cotton can be shipped to Liverpool, in cotton-bagging, more safely than in Dundee or Kentucky bagging, and that the cotton spinners would buy the cotton packed in such bales, in preference; and he likewise shews, that the bagging will not cost half as much if made at home, as has usually been paid for it when imported. According to his estimates, it may be furnished to the planter at about fourteen cents, of a most excellent quality, and forty-two inches in breadth Having employed an experienced manufacturer to examine Mr Marshall's testimony, he assured me that it could be afforded, safely and certainly, in our cotton growing states, at somewhat less than fourteen cents, and was willing to engage, (if furnished with $25.000 to procure machines and put up the necessary buildings, which could be got ready in less than twelve months,) that he would manufacture, weekly, 6,000 yards of this article at that price. With cotton at the present price, cheap provisions and cheap slave labour, it is the opinion of every manufacturer, with whom I have conversed, that Mr Marshall's estimate is a correct one. If the corporate companies now forming in Virginia, manage their concerns with ordinary prudence and skill, this business must succeed; and it is easy to calculate, that immense advantages must result. The report of the committee of North Carolina, corroborates all the doctrines which you have published on this subject, and gives great reason to hope, that some of the capital wasted in the purchase of British goods, may be directed to the establishment of manufactures, which are of primary importance to the southern states. It is said that foreign goods have fallen from five to fifteen per cent. within the last month, and yet the people of the south and west are purchasing as eagerly as if the market, both of goods and of cotton, were on the rise What will be the consequence? The cotton, low as it is, must still fall, and merchants must break, and the whole community suffer incalculable distress and misery. As the foreign manufacturer is enabled, by the low price of cotton, to manufacture goods still cheaper and cheaper, the inducement to cultivate that article, must be withdrawn, and the energy of the south be completely paralyzed. Instead of wasting our resources in cultivating more cotton, let us lay hold of that power which machinery will give to those men who have had sense to employ it.

A Virginian.

N B. The loss occasioned by the fall of one cent on cotton, per pound, in the southern states, would purchase all the machinery necessary to fabricate all the bagging and all the negro clothing wanted for the consumption of those states.* Machinery is now imported from England, in great abundance, to New York and Philadelphia. After paying insurance against the risk of seizure, (about fifteen per cent. it is still much cheaper than that which is made in the northern states. The machinists of England are anxious to encourage this market for their machines, and many of them could be induced to come out with them. There will be no difficulty in obtaining them from New England.

EARLY VEGETATION.

J. S. Skinner, Esq. *Cambridge, March* 26, 1828.

Dear Sir,—I am pleased to see that your correspondents occasionally remit to you, for record in the Farmer, indicia of the relative progress of vegetation in the different sections of our extensive country, of various climes and soils.

I observed in your last number, a communication dated Cahaba, (Alabama,) Feb. 25, 1828, which places the Maryland spring not so much in the rear of that of Alabama, as I had imagined. The letter states, "the honey-suckle and yellow jessamine have been in bloom ten days." On turning to my agricultural memoranda, I find the following entry: "On the 22d of February, 1828, at a birth-night ball in Cambridge, many of our ladies were ornamented with fresh and fragrant honey-suckle, wall-flower, running box, stock July flowers and violets, all in full bloom; the products of the garden, and not of the green-house.

On the 20th of the present month, I discovered in my garden, several strawberries in bloom, and some in fruit.

I have no doubt, had corn been planted on the first of February last, it would have been not far behind that stated in the Alabama notice. The harbingers of spring, (the martins,) have this day announced the advent.

In the full belief that a statement of facts, which may, when accumulated, assist in directing the judgment on agricultural designs, should not be anonymous, I have the honour to subscribe myself,

Yours, very respectfully,

JOSEPH E. MUSE.

COTTON SPINNING MACHINE—WANTED

Mr. Skinner, *Harrisville, Ky , March* 17, 1828.

Sir, You published some time last year (vol. 9, No. 18, p. 140,) that a Mr. W. R. M'Call, of Illinois, had constructed a cotton spinning machine for eight or more spindles, to which would be affixed a carding frame. That both were intended for family use; would cost about $12 00; and agents appointed for their sale shortly. Having seen nothing since in the American Farmer on that subject, and such machine, if found to answer a good purpose, being extremely desirable, with me at least, I should be glad to know what has become of the invention; and if it is come to perfection, where the machine may be had, its merits, price, &c.

I would also ask you the favour to inform me, if a Swiss vigneron could be procured to come out here to undertake the planting and rearing of a vineyard, and what would be the terms that such a person, being single, and under good character, could be procured at.

A Subscriber.

Philadelphia Society for Promoting Agriculture.

Extract from the Minutes of the Philadelphia Society for promoting Agriculture, held Sept. 18, 1827

"Reuben Haines read an extract from a letter from Francis Rotch, on the subject of a series of lithographic prints of cattle. On motion—

"*Resolved*, That the society highly approve of Francis Rotch's plan, inasmuch as they believe it will be extensively useful to the agricultural publick by disseminating correct portraits of improved stock.

V. S WARDER, *Sec'ry*.

Philadelphia, 3*d mo.* 4, 1828.

[There are some handsome specimens of Mr. Rotch's successful efforts in this way, in the office of the American Farmer, for sale, price only 25 cents—being a handsome print of the bull Wye Comet.]

Harvesting Grain.—Professor Schoen, of Germany, says, "every description of bread-corn, when intended for seed, should attain complete maturity before it is reaped; but on the contrary, when corn is to be converted into flour, *it should be cut eight or nine days before it be fully ripe*" "Experience," says he, "has proved, that such grains as from maturity detach themselves from the ears, always produce the finest plants, from being larger and more perfect in their conformation. The proper time for reaping corn, destined for the mill, is when the grains being pressed between the fingers, yield to it, and become a viscous mass" In some parts of Bohemia and Hungary, this practice has been kept a profound secret, because the flour so obtained was very much sought after, and always brought a higher price than the best flour from ripe corn.

Potatoes for Seed.—It seems to be a received opinion among the horticulturists of Great Britain, that Professor Schoen's rule as to grain, should be reversed in regard to this root—that *these must be gathered in an unripe state for seed, and fully matured for the table.* It also appears from numerous experiments, that the upper or seed end of the tuber, will produce roots a fortnight earlier than the lower end, connected with the runner. From the same variety of seed, four successive crops may be obtained, at intervals of two weeks, the seed being planted at the same time and on similar soil, viz: the first from the upper set of the unripe seed; the second from the bottom set of the same; the third from the top end of the ripe seed; and the fourth from the bottom set of the same.

HORTICULTURE.

SILK.

From Worms fed on the common country Mulberry.

Fancy Grove, Sangarno county Illinois, February 29, 1828.

Mr. Skinner,

Sir,—Knowing your friendly disposition towards encouraging domestic economy and home manufacture, I have ventured to enclose to you a specimen of raw silk made from the black mulberry, which grows in great abundance in this state. We have manufactured a quantity of it into sewing silk of different colours, which has been tried by a number of tailors, and pronounced to be of the best quality. There are no persons here acquainted with silk raising sufficiently to judge of the difference between this, and such as is made from the white mulberry.

We can make any quantity of this kind, and I am fully of opinion, that a family, where there are a number of young boys and girls, with some one to manage the business properly, can clothe themselves with silk, and with less labour than with cotton or flax.

Yours, very respectfully,

S. STILLMAN.

[This sample, like all the others we have seen of silk from worms fed on *our* country mulberry, is superior to imported silk.]

APRICOT—PLUM—PEACH.

The Apricot came originally from Armenia, whence it takes its name of Armeniaca, and was introduced into England in 1562

The Plum is generally supposed to be a native of Asia; and the Damascene takes its name from Damascus, a city of Syria.

The Peach (Persica,) is a native of Persia, and was introduced from thence into Europe.

[Forsyth.

Preventive against Birds taking Seeds out of the Ground.—If some *thin light coloured* twine, or *white* worsted, be stretched *tight* across the beds in which seeds are sown, at the distance of about two inches from the surface of the beds, and about 2 or 3 feet from string to string, small birds will not touch either seeds or the young plants of onions, against which sparrows seem to have a particular spite, as they pull them up by hundreds, and leave them lying upon the surface of the beds, but do not appear to eat them. This is the most effectual method I have ever seen employed, and it is a very old one.

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* Estimating the crop at 950,000 bales, of 300 pounds each, the fall of a cent a pound, or three dollars per bale, will be $2,850,000, which, if invested in machines, would soon change the present dependent condition of the southern people It is obvious, that until the present system in the south is radically changed, it is vain to expect good prices for cotton, either at home or abroad. Should it fall to two cents per pound, it would be a blessing to the south as it would create new resources, and obviate impending ruin.

RURAL ECONOMY.

FARNHAM'S GRATER CIDER MILL

[It was in the Salem Observer, if we recollect rightly, that we saw the Cider-mill, advertised below, highly spoken.]

A full-sized mill of this description, without the horse-power or gearing, can be erected for less than *eight dollars*, which will embrace all the patent or grinding part. The following certificate, similar to many others published, will show its superiority over all others now in use.

Woodbury, N. J., March 20, 1828

We, the subscribers, having inspected Joel Farnham's patent grater Cider-mill, are of opinion that it is decidedly to be preferred to the nut or roller mills heretofore in use. It will grind more apples with the same power, in the same space of time, than the ordinary mill, much finer and more uniform, the skin of the apple being completely grated fine, and the seeds left whole—consequently leaving no part of the apple from which the juice may not be expressed.

It is simple in its construction, and combines cheapness and durability, with the above advantage. For a small farm, a machine to be turned by two men, would answer the purpose. We therefore cheerfully recommend it to the patronage of the public.

J. H SLOAN
DANIEL LAKE.
DANIEL BAKER
ELEAZER MAYHEW.
SAMUEL C. THACKRAY.
JAMES DOBBINS
THOMAS EVANS.
JOSHUA BARTON.

The dimensions of a full-sized mill of the above description, with grater cylinder, for horse power, is 16 inches in diameter, and from 9 to 10½ inches long, which will grind from 90 to 120 bushels per hour.

LADIES' DEPARTMENT.

Medical Remarks on Marriage.

(By a Physician)

One of the most common events which follow the attainment of adult age, of both sexes, is marriage. Since this sacred compact is a state in full accordance with the instinctive nature of man, no disadvantage in reference to health, can result from the event itself, if both parties have reached adult age before it occurs; although, the artificial state of society, the cares and anxieties attendant on a family, especially with narrow means only for its support, are circumstances unfavourable to the preservation of that equanimity of temper and gaiety of heart which are conducive to the maintenance of the body. But too often the female has not arrived at adult age; and her health and future comfort are sacrificed either to the inconsiderate vehemence of a girlish passion, or to the baser gratification of one desirous to unite itself with youth, or to the cupidity of a parent, who is eager to get a daughter advantageously settled. The constitution, in few women, can be regarded as properly or firmly established even at twenty years of age; and, indeed it would be advantageous for every woman to pass her twenty-fourth or twenty-fifth year before subjecting herself to the cares and fatigues which the duties of a married life necessarily imposes. I am well aware that this is a doctrine completely at variance with that romance which too often governs the youthful mind, when the imagination usurps the place of reason and paints the future—

"More sweet than all the landscapes smiling near."

But it is to insure solid comfort, instead of this delusive sweetness, this enchantment, which distance spreads over the future, that the acquisitions of experience are demanded to temper and rein in the fervour of youth. If a female marry before twenty—her disposition lively, but temper ardent, and her love of novelty and pleasure still at its ardent height—what is the consequence? Visitings, late hours, dancing, and other dissipations, into which she probably will enter, will prove most injurious to her health when she is about to become a mother; and more certainly if she have already acquired that important character, independent of the hazard which must also endanger, not merely the health but the life of an infant, which is applied to the breast of a mother, either in such a state of feverish excitement or of exhaustion as is likely to be the case in a lady returning from a ball, or a crowded evening party. Women also, under the period of life at which it is contended marriage ought to take place, as they are more ardent in their anticipation, and less experienced in the affairs of life, than those who have attained that age, are also more likely to suffer, if a cloud should pass over the brightness of the scene which they had pictured to themselves from a union with the object of their affections. This produces a slow, corroding grief, which gradually undermines the energy of their nervous system, destroys appetite, and banishes sleep; the pulse becomes languid, weak, and generally unequal; the tone of the heart is, as it were, partially paralyzed, so that the blood is sent feebly through the lungs; the general circulation also being inadequate to carry the vital current through the minute vessels of the skin, the whole body suffers, the complection becomes pale and sallow; for, the depression of the spirits deranging the functions of the liver, disappointment preys equally upon the body and the soul; and, if the individual does not sink entirely, she drags on a life of wretchedness and chagrin. This is a melancholy picture, but it has been too often realized; and many are the love matches, rashly entered into between young people, which have exhibited, in a few years, this sad termination. Diseases of this description, occur from matrimonial alliances at every period of life, and are referred to causes very foreign to that from which they originate. True, indeed, is it, that disappointment and chagrin may result from a marriage contracted at any age—yet experience has proved that they are more frequently the result of unions from violent attachments in the very young and romantic, than in those whose judgments have been matured, and their imaginations moderated, by a little more acquaintance with the world, than either a boy or a girl under twenty years of age can possess.

It is but justice, however, to acknowledge, that it may be contended, and justly, that as much injury arises to health from ungratified love as from premature marriage, and that this operates more suddenly and violently, and the least capable of being controlled. In some constitutions, indeed, it shows itself only by its effects: the body wastes; the pulse becomes tremulous and irregular; deep sighs break from the chest; there is an alternate glow and flushing of the cheek; the mind becomes dejected; the appetite is lost; the speech falters; cold sweats and watchfulness follow, which gradually terminate in consumption, sometimes in insanity. Yet the passion remains latent in the bosom of the sufferer—

> 'She never told her love,
> But let concealment, like a worm i' the bud,
> Feed on her damask cheek.
> She pin'd in thought,
> And with a green and yellow melancholy,
> She sat like Patience on a monument,
> Smiling at grief"

The passion, corroding invariably, like intense grief from any other cause, undermines the constitution; and the only remedy is the union of the parties. But in allowing the truth of this description of the effect of disappointment in the tenderest of all the passions, I would inquire whence the evil proceeds? Is it not the result of an error in female education? Does it not arise from the early impression which every girl receives, that marriage is the best and most important object of her life, and from the anxiety of every mother to push off her daughters as soon as they have arrived at that period of life which has been erroneously fixed as the marriageable age? Were this altered, and young women impressed with the idea that marriage before the age of twenty-four or twenty-five, is both injurious to health, and likely to hazard their future felicity, the passion which is awakened prematurely would seldom be indulged before the constitution is confirmed, and the judgment sufficiently matured to make that selection which is more certain of insuring happiness than the romance and ideality of the majority of early marriages, on the present system. At all events, there can be no doubt of the advantages of the change, in reference to health.

SPORTING OLIO.

(From the Hunting Directory.)

HUNTING.

Hunting is so deeply interesting to the human heart, that it is ardently followed by the savage as well as by the civilized man; and no doubt can be entertained, that the inhabitants of this island, prior to the invasion of Julius Cæsar, followed the chase, as well for amusement, as for the means of subsistence; but as we are ignorant of the means which they adopted to accomplish their purpose, we must be content with the slender knowledge we possess on the subject, and proceed for further information to periods when the chase was followed under what may be called a regular and well-authenticated form.

When the Saxons visited this country, hunting assumed an organized character; and no sooner had the Danes attained the mastery, than they instituted laws for the protection of game, the increased severity of which marked the imperious sway of the Normans, and fixed an indelible stigma on the memory of William I The Saxons were undoubtedly much attached to hunting—the same remark will equally apply to the Danes; while the Normans manifested such an invincible passion for field-sports, that the business of the chase was regarded as one of the most important duties of life, by the monarch and all the great men of the kingdom. Hence it is not surprising, that the science of hunting should have made considerable progress under such ardent sportsmen; the services of that noblest of quadrupeds, the horse,* were called in to enhance the pleasures of the chase; and the breeding of hounds seems, at this period, to have been well understood, and pursued upon systematic principles. It is true, the hounds used by the Normans, might be somewhat different from our modern stocks; but they were, no doubt, well adapted to the state of the country, and the mode of hunting then pursued; and were, in all probability, of the old Talbot kind, whence have sprung, I am inclined to think, all the various ramifications of the hound tribe which may be seen in various parts of the kingdom at the present day.

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* It is doubtful if the horse was used in the chase prior to the Norman Conquest.

Somerville's ideas upon the subject of the hunting of our remote ancestors, perfectly agrees with the opinion above expressed, as will be seen by the following quotation from his expressive and elegant poem:

——————"Devotion pure,
And strong necessity, thus first began
The chase of beasts: though bloody was the deed,
Yet without guilt. For the green herb alone,
Unequal to sustain man's labouring race,
Now every moving thing that liv'd on earth
Was granted him for food. So just is Heaven,
To give us in proportion to our wants.
Or chance or industry, in after time,
Some few improvements made, but short as yet
Of due perfection. In this isle remote,
Our painted ancestors were slow to learn,
To arms devote, of the politer arts
Nor skill'd nor studious; till from Neustria's coasts
Victorious William, to more decent rules
Subdu'd our Saxon fathers, taught to speak
The proper dialect, with horn and voice
To cheer the busy hound, whose well-known cry
His listening peers approve with joint acclaim.
From him successive huntsmen learn'd to join
In bloody social leagues, the multitude
Dispers'd, to size, to sort their various tribes,
To rear, feed, hunt, and discipline the pack.
Hail, happy Britain! highly favour'd isle,
And Heav'n's peculiar care! to thee 'tis given
To train the sprightly steed, more fleet than those
Begot by winds, or the celestial breed
That bore the great Pelides through the press
Of heroes arm'd, and broke their crowded ranks,
Which, proudly neighing, with the sun begins
Cheerful his course, and, ere his beams decline,
Has measur'd half thy surface unfatigu'd.
In thee alone, fair land of liberty!
Is bred the perfect hound, in scent and speed
As yet unrivall'd; while, in other climes,
Their virtue fails, a weak degenerate race.
In vain malignant steams and winter fogs
Load the dull air, and hover round our coasts,
The huntsman, ever gay, robust, and bold,
Defies the noxious vapour, and confides
In this delightful exercise to raise
His drooping head, and cheer his heart with joy."

I am inclined to think, that many of our hunting terms at present in use, may be traced to a Norman origin: *halloo*, for instance, immediately derived from *ā loup*, seems to have descended from the source just mentioned.

The Normans went to the field, or rather, perhaps, to the forest, on horseback, armed with bows and arrows, and other weapons, and attended by a great retinue. The game was roused by the dogs, and shot at by the sportsmen, as often as opportunity offered; a considerable space was, on some occasions, encircled by toils or nets, and a sort of indiscriminate slaughter ensued, of the various animals thus enclosed.

The stag, the wolf, and the wild boar, constituted the principal objects of pursuit; and though there was no scarcity of foxes, yet these animals, which, at present, afford a species of diversion which leaves all other field-sports at an immeasureable distance, were little attended to by the sportsmen of the remote period now under contemplation: the reason is evident—the chase of the fox was not understood, nor yet adapted to the state of the country; and though we now regard the pursuit of this animal as far preferable to any other chase, it is owing almost entirely to the different aspect which the face of the country presents, that it stands so deservedly high in the estimation of modern sportsmen. When the early Normans followed the chase in this country, the game, it is true, was roused and pursued by the hounds, as I have already observed; but it generally received its quietus from the hand of the sportsman, either by means of the arrow, the spear, or other weapon with which he was prepared for the purpose. Under such a system of the chase, a fox would appear scarcely entitled to attention; nor would he, indeed, form a mark sufficiently conspicuous for the arrow or the spear; and therefore, upon a transient view of the subject, it will seem no way surprising, that he was little, if at all, sought after by the old Norman sportsmen.

A few illustrative observations, from an ancient writer, will show the irresistible propensity of the Normans for the chase, as well as the style and character in which they pursued it:

"In these days" says he, "our nobility esteem the sports of hunting and hawking, as the most honourable employments, the most exalted virtues; and to be continually engaged in these amusements is, in their opinion, the summit of human happiness. They prepare for a hunt with more trouble, anxiety and cost, than they would for a battle, and follow the beasts of the forest with more fury than they do their enemies: by being constantly engaged in this savage sport, they contract habits of barbarity, lose, in a great measure, their feelings of humanity, and become nearly as ferocious as the beasts they pursue. The husbandman is driven, together with his innocent flocks and herds, from his fertile fields, his meadows, and his pastures, that beasts may roam there in his stead. Should one of these potent and merciless sportsmen pass your door, place before him, in a moment, all the refreshment your habitation affords, or that can be purchased or borrowed in your neighbourhood, that you may not be utterly ruined, or perchance, accused of treason." The same writer tells us, "that the fair sex caught the predominant passion; while, we learn from other sources, that the *mitre* deserted its functions, and the *cowl* quitted the quiet retirement of the monastery, to join in the transporting pleasures of the chase."

Walterus, archdeacon of Canterbury, who was promoted to the see of Rochester, in 1147, totally neglected the duties of his sacred profession, and devoted his time entirely to hunting. At the age of 80, he is said to have been a keen sportsman, and he died at a very advanced period. Reginaldus Brian, Bishop of Worcester, in 1332, was distinguished for his attention to field-sports; and in an epistle of his (now extant) to the Bishop of St. David's, he reminds him of a promise he had made to send him six couple of excellent hunting dogs. He declares his heart languishes for their arrival, and observes: "Let them come, then, oh! reverend father! without delay; let my woods re-echo with the music of their cry, and the cheerful notes of the horn; and let the walls of my palace be decorated with the trophies of the chase!" Some of these clerical sportsmen, however, contrived to blend amusement and business, as it were; and in their visitations through their dioceses, they were attended with such numbers of horses, hounds, huntsmen, and falconers, that the religious houses were frequently very much distressed to provide for so numerous a retinue. About the year 1200, the prior and canons of Bridlington, in Yorkshire, presented a formal complaint to the pope (Innocent III.) against the archdeacon of Richmond, who, when he made his visitations, brought such a prodigious number of attendants, that the complainants declared, that his suite consumed more provision in one hour than would serve the whole community a long time. The pope, in consequence, despatched a bull, forbidding such scandalous and oppressive visits in future.

The monasteries, also, produced their mighty hunters; and William de Clowne, who is celebrated as the most amiable ecclesiastic of his time, and who filled the abbacy of St. Mary, in Leicestershire, is no less distinguished for his profound skill in the science of the chase, which is numbered among his excellent qualities; and that his kennel might always be well supplied with hounds, the king granted him the privilege of holding a fair or market, for the sole purpose of dealing in dogs.

MISCELLANEOUS.

QUACK MEDICINES—*Often deleterious to health, sometimes dangerous to life.*

[Although practical agriculture will always be the leading subject of this journal, those who have favoured it with their patronage are aware that we go, as it would seem, a little out of our way to glean and preserve here, what may be of real practical utility in the every day walks of life. Of such a character we regard the expositions of those who examine and denounce such *quack medicines* as, being most popular, are most extensively mischievous. Of all these mischievous compounds of *universal efficacy* and *perfect harmlessness*, few have obtained such a *run* as *Swaim's Panacea*. We should not feel justified in circulating an anonymous, as it might not be a disinterested, denunciation of this sort; but when the deleterious effect of many of these quack medicines is vouched for by physicians of high professional and private character, it seems to be a duty to put the publick on their guard.—What follows is taken from an article in the last North American Medical and Surgical Journal, edited by five eminent physicians and surgeons of Philadelphia, and published by Messrs. Carey, Lea & Carey. The whole article is well worthy of perusal; we have room only for what follows:]

"The committee, appointed by the Medical Society of Philadelphia, to inquire into the medical value of the more prominent species now sold under the assumed names of Panacea, Catholicon, Minerva Pill, &c. submit the following report:

"In obedience to the requisition of the society, they have lost no time in despatching circulars to the practitioners of medicine in this city, and to a large number of physicians in various parts of the United States, from some of whom they have received in return much valuable information.

"The questions growing out of this inquiry refer chiefly to the most widely known of these pretended specifics, viz. Swaim's Panacea."

After giving in detail a number of cases, the committee thus state the result:

"The committee, on a review of all the testimony presented to them, and a portion of which they have placed before the society, find, that the claims set forth by Swaim in favour of his Panacea, as a surpassing remedy for *scrofula*, and on its success in which disease he rests so much of its merits, are not only without support in fact, but are entirely set at nought by the result of numerous cases, and the experience of our most cautious and celebrated surgeons and physicians. The opinions deduced from extensive observation and very many facts, during several years, by Drs. Physick, Gibson, Randolph, and Emlen, are conclusive of the comparative inefficacy of the remedy in scrofula."

They then proceed to consider its pretended and boasted virtues in *cancer, syphilis, mercurial disease, rheumatism, ulcers in the throat, cutaneous eruptions, and dyspeptic complaints*, and pronounce it to be of no value in either. Having done so, they say:

"It would be a source of great gratification to the committee, if they could, in imitation of the proprietor of the Panacea, say that 'this medicine is entirely harmless,' and 'that it may be given without hesitation, or the least apprehension of danger, alike to the most tender infant and the adult, with equally beneficial results.' The preceding cases show the utter fallacy of this assertion, and that the syrup, in the manner in which it is often compounded by the proprietor, and prescribed by him and others, is eminently calculated to *destroy the digestion and undermine the powers of life.* Every reflecting person must be struck with the revolting contradiction exhibited by the friends of the Panacea, in claiming for it great power over the most obstinate diseases, and yet calling it perfectly harmless. No such agent ever has been, or can possibly be, demonstrated to operate either on the physical or moral nature of man. With the possession of properties capable of doing good, is the correspondent ability extensively and deeply to injure by their misapplication. Poisons of the most active class may sometimes be taken in minute doses, without exhibiting any deleterious effects; as we see in the preparations of arsenic, and in corrosive sublimate, occasionally prescribed by medical men. But we should be at a loss to find language sufficiently expressive of our surprise and indignation, if, on the strength of such occasional immunity, any person could be found so lost to reason and feeling as to say, that Fowler's Arsenical Solution, and corrosive sublimate, disguised in syrup, might be freely given to the most tender infant, and that they were perfectly harmless."

"In an evil hour, the plan of mixing corrosive sublimate with, at least, certain parcels of his Panacea was adopted; and ignorance, vexatious before, was then armed with an instrument of mischief and destruction."

"The Panacea of Swaim is on the same footing with the quack medicines that have so often preceded its introduction. Imperfect admixture and suspension of the *corrosive sublimate*, and of course, comparative correctness of one portion of the syrup, and the most deleterious and *poisonous* effects of the other, are some of the evils attendant on its secret manufacture. If to these be added the indiscriminate recommendation of the Panacea for every form of disease, to persons ignorant of what they are swallowing, and totally unable to foresee, and of course unprepared to prevent or mitigate its deleterious effects, or to avail themselves in time of the counsel and assistance of their medical adviser, a faint idea may be entertained of the mischief which has ensued on the use of this much and so fatally lauded nostrum."

Having mentioned two particular instances in which Swaim has wholly failed in his attempts of promised cure of cancers with his Panacea, the committee thus speak of the third.

"The third case was of a lady of Maryland, who, notwithstanding the advice of her distinguished medical attendant to avoid harsh measures for her disease, a cancer of the breast, had recourse to Swaim to *cure* her. He was entrusted to do that, which he never could do, on the strength of what he never had done. After many months of acute suffering from his applications, and her disease aggravated, she has abandoned the Panacea man, and is now under the care of Drs. Physick and Horne. Facts of this nature are pregnant with instruction."

"The information obtained by the committee, in reply to the circular of the Medical Society, has been chiefly on the subject of the Panacea of Swaim: but, as far as facts have come to their knowledge, there is every reason to believe that the other Panaceas, and the Catholicon and Columbian Syrup, are, in composition and general effects, similar to, if not identical with the nostrum of Swaim. The proprietors and venders of all of them, publish accounts of wonderful cures, performed by their use; but all ought to be viewed with equal mistrust, and for the reasons already given, be treated with no favour by the regular practitioner, who regards himself as one of the guardians of the health of his fellow citizens."

Signed by W. E. HORNER, *Chairman*,
THOMAS HARRIS,
JOSEPH KLAPP,
CHARLES D. MEIGS,
JOHN BELL.
Committee.

MIGRATION OF BUTTERFLIES.

[From the January (1828) number of the Paris "Journal des Connaissances Usuelles et Pratiques.]

We are surprised that birds should cross seas and travel immense distances in the air, without stopping to rest: and, indeed, it is difficult to understand how the muscular strength of those little animals can sustain an exertion so prolonged and incessant. But it is, perhaps, still more astonishing, to find so feeble an insect as the butterfly transporting itself on its wings to the greatest distances. We ourselves have witnessed the fact. On a voyage which we made along the coast of Italy, there came, when we were about thirty miles from the gulf of Salerno, a butterfly, (of the species *Papilio brassicæ* Fab.) which perched upon the mast of our vessel, and, after remaining there five or six seconds, resumed its flight towards the shore.

It appears, from an account given by M. P. Hubert, in the *Bibliothéque Universelle*, of August, 1826, that some kinds of butterflies do, in effect, migrate like birds. It is not probable, however, that they continue equally long on the wing without repose. Many credible witnesses relate, that on the 10th of June, in the canton of Vaud, in Switzerland, they saw an immense flock of butterflies passing over a garden. They were all of that kind (*Papilion belle-dame,*) which feeds chiefly upon the thistle. The direction of their flight was from south to north; from which the presence of men, though very near them, did not make them deviate.

They occupied more than two hours in passing over the place. The column was ten or fifteen feet wide, and its extremities reached out of sight. The butterflies did not alight upon the flowers, nor linger about them; but kept on their course, near the ground, at a rapid and uniform rate. What is not less surprising, this same species of butterfly was seen in Piedmont towards the close of March in the same year. It is true that they tarried, here and there, in the countries over which they passed; but always advanced from south to north. It is likely that these insects, after living on the early flowers of the south, while they last, emigrate to colder regions, to find the same plants, less precocious, still in the blossom. The want of more abundant or agreeable food, or the desire of a climate more congenial to its nature, produces in the butterfly that instinct or inclination that leads it from one region to another.

OF EXPENSE.

Riches are for spending, and spending for honour and good actions; therefore extraordinary expense must be limited by the worth of the occasion: but ordinary expense ought to be limited by a man's estate, and governed with such regard as to be within his compass, and not subject to deceit and abuse of servants; and ordered to the best shew, that the bills may be less than the estimation abroad. Certainly, if a man will keep of even hand, his ordinary expenses ought to be but to the half of his receipts; and if he think to wax rich, but to the third part. It is no baseness for the greatest to descend and look into their own estate. Some forbear it, not upon negligence alone, but doubting to bring themselves into melancholy, in respect they find it broken: but wounds cannot be cured without searching. He that cannot look into his own estate at all, had need both choose well those whom he employeth, and change them often; for new are more timorous and less subtile. He that can look into his estate but seldom, it behoveth him to turn all to certainties. A man had need, if he be plentiful in some kind of expense, to be as saving again in some other: as, if he be plentiful in diet, to be saving in apparel; if he be plentiful in the hall, to be saving in the stable and the like—for he that is plentiful in expenses of all kinds, will hardly be preserved from decay. In clearing of a man's estate, he may as well hurt himself in being too sudden, as in letting it run too long; for hasty selling is often disadvantageable as interest. Besides, he that clears out once will relapse; for, finding himself out of straits, he will revert to his customs: but he that cleareth by degrees induceth a habit of frugality, and gaineth as well upon his mind as upon his estate. Certainly who hath a state to repair, may not despise small things; and commonly, it is less dishonourable to abridge petty charges, as stoop to petty gettings. A man ought warily to begin charges, which once begun will continue—but in matters that return not he may be more magnificent. Bacon.

CHINESE PAPER,

Of which so much use is now made in Europe, chiefly for copper-plate impressions, is distinguished by its homogeneous texture, its smooth and silky surface, its softness and extreme fineness. It is sold in very large sheets, some of which are four or five yards long, and a yard wide. The Chinese fabricate their paper from different materials. In the province of Se-Tachuen, it is made of hempen rags, like the paper of Europe; that of Fo-Kiew is made of the young shoots of the bambo, that of the northern provinces, of the inner bark of a tree, called ku-tachu, which is only the paper mulberry (*morus papyrifera.*) It is this paper which is most commonly employed in China. They resort to chymical solvents, and especially to the ley of ashes, to bring it to a soft pulp or paste; and they make use of rice-water and other infusions, to render it properly consistent, and sufficiently moist and white.

Scotch Exports.—At a dinner of the Caledonian Horticultural Society, in September, the Earl of Roxbury presiding, the following was given as a leading toast: "The staple exports of Scotland, Gardeners, Doctors and [other] Black Cattle."

[*Cal. Mer. Sept.* 8.

To the Publishers of Papers and Periodical Works throughout the United States.

It is intended before, or certainly by the 1st of May next, in a pamphlet, with other statistical matters, to notice all the Newspapers and Periodicals in the United States, and the city or town where published, by whom, and the conditions of publication, &c. A copy, containing the above, shall be faithfully forwarded to each of you who will insert this notice *once*, and forward a paper or copy of the work you publish, directed to

"THE TRAVELLER."

Philadelphia, Feb. 28, 1828.

Vegetable Life.—A rather uncommon instance of the tenacity of life in the vegetable kingdom, occurred in the royal park at Rushby. Some small portion of it was broken up for the purpose of ornamental culture, when immediately several flowers sprang up, of the kinds which are ordinarily cultivated in gardens. This led to an investigation, and it was ascertained that this identical spot had been used as a garden not later than the time of Oliver Cromwell, more than 150 years before.

When Eye-glasses are to be Used

The cases in which eye-glasses may be used with advantage, are nearly the following, viz: When we are obliged to hold small objects at a considerable distance, before we can distinguish them. Second: when, in order to discern objects, we require more light than usual—for instance, when we are obliged to place a candle between the eye and the object, a most destructive practice, by which the optic nerves and muscles are much injured; and, as the eye employs itself with the object, in proportion to the degree of light reflected upon it, the pupil ought to dilate accordingly; instead of which, it is forced to contract, on account of the too powerful light of the candle. Third: when a near object, upon accurate and attentive examination, becomes obscure, and begins to appear covered with a mist or fog, as it were. Fourth: when, in reading or writing, the letters seem to flow into one another, and look as if they were double or treble. Fifth: When the eyes are easily fatigued, and we are obliged, from time to time, to shut them, or to direct them to fresh objects, for temporary relief. [*Willich*

RECIPES.

BEST METHOD OF CLEANING FINE BLOCK TIN DISH-COVERS, PATENT PEWTER, &c.

Where the polish is gone off, let the articles be first rubbed over the outside with a little sweet oil, on a piece of soft linen cloth; then clear it off with dry pure whitening, quite free from sand, on linen cloths, which will make them look as well as when new. The insides should be rubbed with rags moistened in wet whitening, but without a drop of oil. Always wiping these articles dry, when brought from table, and keeping them free from steam or other damp, greatly facilitates the trouble of cleaning them.

CEMENT TO MEND BROKEN CHINA OR GLASS.

Garlic, stampt in a stone mortar; the juice whereof, when applied to the pieces to be joined together, is the finest and strongest cement for that purpose, and will leave little or no mark if done with care.

THE FARMER.

Baltimore, Friday, April 4, 1828.

☞Notice is hereby given, that the owners of valuable mares in Anne Arundel and Baltimore counties, may expect to have, by the first of May, and on moderate terms, the services of a thorough-bred stallion, of the best pedigree and qualities, from the stud of a gentleman in the south of Virginia. Further particulars hereafter.

☞The Editor respectfully asks the favour of any patron of this paper, to send him the name of any gentleman who he may suppose would subscribe to the American Farmer; and a number or two of the paper shall, in that case, be sent as a fair specimen, for examination.

PROFITABLE HORTICULTURE.

Extract to the Editor, from

Wyoming, Va., 24th March, 1828.

"A letter has been recently placed in my hands, written by Colonel Adlum, near Georgetown, to a friend of mine, resident of Petersburg, from which I learn the following facts, developed under his management of the vine:

1st. That upon an average of ten years, after the three first, the vine produces 400 gallons per acre.

2d. That from two and a half acres, in 1826, he realized from eleven to twelve hundred dollars, after deducting all expenses.

3d. That he considers its cultivation far more profitable than a crop of either tobacco, cotton or sugar, and not more expensive or troublesome to get it to market."

ON GARDENING.

[From the November (1827.) number of the Paris "Journal des Connaissances Usuelles et Pratiques," received in exchange for the American Farmer, we extract the following short account of a *horticultural* society, lately established in that city. As Baltimore is destined, by the great works of internal communication now on foot, to become a very large city, in which there will be, of course a great demand for vegetables, fruit and ornamental trees and shrubs, we do not know any thing to which the attention of those who have land in the immediate vicinity can be more properly directed, than to gardening. The attempt to compete with the interior, when the rail-roads shall be made, in wheat, rye, corn, beef, &c. &c. would be vain. We must resort to the cultivation of those articles that are consumed from day to day in large communities, and that will not bear to be transported to a distance. No country can be better adapted, in soil, climate, position, and facilities, than the neighbourhood of Baltimore, for every branch of horticulture. The object of attracting public attention to this important subject, and eliciting and giving all necessary and useful information, would be appropriately attained, we think, by connecting with the Maryland Agricultural Society a department of horticulture.]

(From the "Journal des Connaissances Usuelles et Pratiques.")

We promised, in one of our late numbers, to give some account of the organization and by-laws of the Horticultural Society established by Count de Lasteyrie and Viscount He'riert de Thury. This institution, which was much wanted and which will indubitably lend a powerful impulse and developement to our gardening and tilth, has received the approbation of a great many persons both in the capital and in the country, who have zealously subscribed for its support, and contributed also their literary labours. The society has already had several meetings, and has begun to arrange and systematize the numerous objects it embraces. There have appeared two numbers of its journal, whose purpose is to disseminate throughout France a knowledge and practice of the best methods, and such facts as may be calculated to interest the friends of horticulture. Our readers will learn from the following extracts from their constitution and by-laws, what means the society intend to adopt.

CHAPTER I.

Objects of the Society.

The Horticultural Society is founded for the improvement of the cultivation of the kitchen and pleasure gardens, of the culture of the plants and fruits most used for the food of man, of vegetables that may be usefully employed in the arts, of nurseries of fruit trees; of trees, shrubs and flowers that serve for ornament, of orangeries, hot-houses, &c.

It will also endeavour to introduce into France the finest kinds, and to make them general.

It offers premiums and medals, for encouragement.

It solicits descriptions of plants, shrubs, flowers, and fruits, remarkable for their novelty, their beauty, or their usefulness. The progress and ultimate perfection of the art being dependent upon observation and experiment, the society will consider of the best means of procuring a garden.

Under its direction a journal will be published, and sent gratuitously to the members.

Among the various committees we remark the following:

A committee on nurseries and the culture of fruit trees;

A committee on culinary vegetables;

A committee on medicinal vegetables, and those used in the arts;

A committee on hardy and tender ornamental plants;

A committee on the laying out of gardens;

A committee on the management of gardens.

In another section, the various duties of the respective committees are specified and enumerated.

GARDEN SEEDS.

Just received, a new assortment of choice Garden Seeds, raised and put up in the best manner by the *United Society of Shakers*, at Hancock, Berkshire county, Massachusetts, and marked with the name, and the *retail* price of the seeds, and the letters D. G

For sale by EDWD. I. WILLSON,
Commission Merchant, No. 4, Bowly's wharf,
April 4. *Baltimore.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No 4. Bowly's wharf.

Tobacco.--Scrubs, $4.00 a 7 00—ordinary, 2.00 a 4.00—red, 4.00 a 5.00—fine red, 5.00 a 6.00—wrapping, 6.00 a 12 00—Ohio yellow and red, 4 00 a 7.00— yellow, 7.00 a 20.00—Virginia, 2.50 a 8.00—Rapahannock, 3.00 a 3.50—Kentucky, 3.00 a 5.00. Inspections last week, 244 hhds. Maryland, 41 hhds. Ohio, 7 hhds Virginia, and 5 hhds Pennsylvania.

Flour—white wheat family, $6.00 a 6 25—superfine Howard-st 4.50 a 4.62½; city mills, 4.50; Susquehanna, 4.25—Corn Meal, bbl. 2.50—Grain, best red wheat .80 a 86—best white wheat, .90 a .95—ordiny. to good, .75 a .80--Corn, .35 a 37—Rye, 42 a 44--Oats, 21 a 23—Beans, .80 a 1.00—Peas, .55 a .60—Clover seed, 3.75 a 4.00—Timothy, 2.50 a 2.75—Barley, .60 a .62—Flaxseed, .75 a .80—Cotton, Virginia, .9 a .9½—Louisiana, 10 a .13—Alabama, 9 a .12—Mississippi, .10 a .13—N. Carolina, .9 a .10½—Georgia, .9 a .10½—Whiskey, in hhds 1st proof, .22—in barrels, 24—Wool, common, unwashed, .15 a .16—washed, .18 a 20—three quarter, .25 a 30—full do. .30 a 35—Hemp, Russia, ton, $280—Country, dew-rotted, ton, 136 a 140—water-rotted, 170 a 190—Fish, shad, Susquehanna, No. 1, bbl. 6 00 a 6.50; do. do. trimmed, 6 50—Herrings, No. 1, bbl. 3.00 a 3.25; No. 2, 2.62½—Mackerel, No 1, 5.62½; No. 2, 5 37½; No. 3, 4.50—Bacon, hams, Balt cured, .9; do Eastern Shore, .12½—hog round, cured, .6 a .7—Feathers, .26 a .28—Plaster Paris, cargo price per ton, $3.25; ground, 1 25 per bbl.

Marketing—Apples, bush. 1.00 a 1.50; Butter, lb. .25 a 31; Eggs, dozen, .9 a 12½; Turnips, bush. .37½; Potatoes, wholesale .50, retail .50; Parsnips, .75; Onions, .40; Turkies, .75 a 1.00; Ducks, .50; Chickens, pair, .62 a 75; Beef, prime pieces, lb. .10; Veal, 8 a 10; Mutton, 5 a 6; Pork, 6; fresh Shad, per pair, 25 a 37½; Live Cattle, $6. Hay, per ton, $10.00; Straw, 6.00.

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On Sheep Husbandry, with an Estimate for a Farm devoted exclusively to Sheep—On Agricultural Schools, by Professor Eaton, of the Rensselaer School at Troy—Duties on Wool, with a Table—Calculations on the proposed duties on Wool and Woollens—Maple Sugar—Manufacture of Cotton in the Southern States, No. XX—Early Vegetation on the Eastern Shore of Maryland—Cotton Spinning Machine inquired for—Philadelphia Society for Promoting Agriculture—Harvesting Grain—Seed Potatoes—Silk from Worms fed on the Common Mulberry—Apricot, Plum and Peach—Preventive against Birds taking Seeds out of the ground—Farnham's Grater Cider Mill—Medical Remarks on Marriage—Hunting—Quack Medicines, Report on Swaim's Panacea—Migration of Butterflies—On Expense—China Paper—Scraps—Vegetable Life—When Eye Glasses are to be used—Recipes—Editorial, Profitable Gardening, Horticultural Society—Prices.

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(Communicated for the American Farmer.)

OBSERVATIONS ON THE SILK WORM.

The success which has attended my experiments on the silk worm, and a desire to promote the introduction of this important branch of industry into a country so peculiarly adapted to it as ours, are my inducements for offering the following observations, derived principally from my own experience; aided by a valuable pamphlet, lately sent me from France. I would feel great diffidence in this undertaking, after the many treatises that have been published on this subject, were it not for the frequent applications that are made to me for information respecting it, by persons who have doubtless read most of these essays, but who do not appear to have derived from them much practical instruction. Perhaps they have been too elaborate, sometimes too fanciful; giving an air of difficulty to a very simple occupation, or treating as a subject of taste and amusement, what is essentially a matter of business. The silk worm is a hardy, vigorous, ugly insect. The housewife, with her brood of early chickens, liable to sicken in the dew, or perish in the frost, has many more perplexities to encounter than this sturdy glutton, whose only want is food, will occasion her; and the curious will find a higher gratification in observing the labours of the bee. But, on the score of profit, and to the females especially on the small farms throughout our country, I am persuaded, this insect would prove a valuable acquisition; as it has already done to their more provident country-women in the north; demanding only the attention of their leisure hours during six weeks of the year, and requiring no further capital than nature has furnished them, in the fine mulberry trees with which she has stocked our forests. Once understood, which it cannot fail to be, after one season of experiment, this culture would form a very lucrative branch of household industry; and, without interfering with the poultry yard, or dairy, become a more important source of revenue. In the silk countries of Europe, every cottage has its stock of insects, which are set to work in the spring, and when their labours are ended, their produce finds a ready sale in the manufacturing districts. It is the province of the agriculturist to furnish the raw silk, either in cocoons as the worm leaves it, or in skeins if he have the means of reeling it, as it is of the planter, to supply us with cotton, or the grazier to produce his wool. Even now, this precious material is demanded in the eastern states, where extensive preparations have been made for manufacturing it; and I would very soon avail myself of the facilities I have of establishing machinery for this purpose at Warren, could I see a prospect of a sufficient supply of raw silk to employ it. To obtain this, a very general co-operation of our agriculturists will be necessary; and my object is, to engage them to make the experiment in their families, during the approaching season, in the hope that they will find it to their advantage, to follow it more extensively hereafter. With this view, I have entered into the minutest details of the habits and wants of the insect, and laid down such rules for its treatment, as cannot, I think, be misapprehended.

I have avoided giving any calculations as to the quantity of silk produced by a given number of insects, or the profit likely to accrue to the cultivator. Indeed, I have no certain information on these points, and they are still doubtful, even in Europe, where the business is so much better understood; besides, they there compute the eggs by weight, and it would be impossible to apply these estimates to the small number of insects employed in an experiment. It is merely important for us to ascertain, that the insect will thrive in our climate, that suitable food can be obtained for it, its management easily acquired, and we shall then enter upon it as a branch of business with more confidence.

To those who are really disposed to make the experiment, I will cheerfully present a small quantity of eggs, if they will leave their address at the Warren warehouse in Hanover street; and as these increase three or four hundred fold in a season, a stock may soon be obtained by such as wish to continue it. This will afford them an opportunity of becoming acquainted with the culture. They may form some idea of the number of insects they can attend; what quantity of silk will be produced, and whether this addition to their cares, will be sufficiently rewarded.

My experiments last summer, with about fifteen hundred worms, though made under every disadvantage, were very satisfactory. In the hurry of other engagements, they were forgotten until the season was far advanced, and the leaves had become too old to afford them the tender nourishment they require in the early periods of their existence. On opening the paper which contained the eggs, and which I had deposited in my cellar to prevent their hatching, I found the insects were beginning to intrude themselves; thus shewing how easily this process may be managed, and that the ordinary temperature of the season is sufficient to effect it, without resorting to the artificial and troublesome measures pointed out by most writers on the subject. Mine had been but a few hours in my sitting room, before the whole business was accomplished. I was soon compelled to remove them, (not having a spare room in my house to appropriate to them,) to a dark and badly ventilated chamber in the village, where they were subjected to continual noise and interruption. They had, too, to endure frequent changes of temperature, as we had late frosts and much wet weather; and there was no fire-place in the room to afford the means of warming it. Thunder, said to be pernicious to them, did mine no injury, though they had two tremendous storms to encounter. In a word, they seemed to require nothing but food, and as the mulberry trees in the neighbourhood furnished this in abundance, they flourished beyond all expectation; yielding me at the expiration of four weeks and a half, three pecks of perfect cocoons, (so their balls of silk are called,) and a vast quantity of eggs for a future season. These cocoons, have been pronounced by persons from the silk districts of France, and accustomed to this business, equal to any they have seen in that country, and they approve highly of the quality of the silk reeled from them, leaving no doubt in my mind, of the practicability of bringing this valuable material into general culture in our state.

I am putting up a small building, sufficient to accommodate as many insects as the mulberry trees, which are very numerous here and in the neighbourhood, will supply with leaves, and will also feed some with the white mulberry, keeping them distinct, to ascertain which is the most proper food for them. I will also keep a strict account of the expense of attending them, the quantity of silk they produce, its quality and value, and communicate the result hereafter, should the zeal displayed in the pursuit this season, induce me to believe they will be thought interesting.

The prevailing opinion seems to be, that the white mulberry tree furnishes the most suitable food for the silk worm, and yet I cannot find a single writer who gives it a decided preference, while many admit it to be a matter of doubt. The author of the French pamphlet I have alluded to, merely imagines it may have a favourable influence on the quality of the silk.—The black has many advocates. In some countries, the various kinds are used indiscriminately, and even the *morus papyrifera* or paper mulberry, the least inviting in appearance of all, is frequently resorted to. My own experience induces me to believe, that the red mulberry, which is a native of our forests, and which differs very little from the black of Europe, will answer perfectly well. There cannot be a more healthful or succulent leaf than that which it produces, and those who have not the exotic kinds convenient, will run no risk in substituting it. It will afford them the opportunity at present, of becoming familiar with the habits and treatment of the insects, and allow time to make plantations of the other descriptions for future seasons.

As soon, therefore, in the spring, as the weather becomes mild and settled, and the buds of the mulberry tree begin to expand, the paper on which the eggs are deposited, hitherto kept in a cool cellar, may be laid, loosely folded, in a situation affording a temperature of 60 or 65 degrees, for two or three days; and which may be gradually increased to 80, as the leaves are pushed forward or retarded by the season. Where there are but few eggs, these variations of temperature may be attained, by removing them to different parts of the apartment; always avoiding the direct rays of the sun; by wearing them about the person, or by placing them in a kitchen if necessary to hasten their production. Generally, I should imagine the temperature of the season would be sufficient, and if favourable to the advancement of the leaf, would probably bring forth the insect in proper time. This is, however, a critical point in the management of the silk worm, and perhaps the chief obstacle our capricious climate opposes to it. The late frosts to which we are liable, and which sometimes destroy the leaves of the hardiest forest trees after they are completely expanded, might unexpectedly deprive the stock of sustenance, and they must perish. But this risk is to be incurred with many other productions, and the advantage here is, that though the disappointment may be great, the loss is inconsiderable. The eggs cost little, and the insects, at this early period, have not had labour enough bestowed on them, to make them valuable.

The eggs being properly matured, the insect will come forth in the form of a small black ant, full of life and activity, and eagerly demanding food; but if it be observed that only a few have made their appearance, it will be better to let them remain, until a general production has taken place, and even to perish if a considerable interval should elapse before this occurs. The first worms are generally of little value; and it would be difficult to regulate their treatment with those that come later. In large establishments, this is accomplished by placing the insect first obtained, in a cool situation, and feeding them sparingly, to retard their growth; while the late ones are allowed more heat and food, that they may overtake them, and thus go through the different stages in the same time. This, in a mere experiment, would afford too much trouble; and it is, therefore, better to lose the very forward eggs, and to throw away the very backward ones, or to keep the worms produced from the latter distinct from the general stock. It is also recommended, where the business is extensively engaged in, to scrape the eggs from the paper on which they have been deposited, and to place them on pewter or earthern plates, preparatory to their hatching, after they have been washed in very pure water and carefully dried; but this trouble appears unnecessary, and the danger of breaking or losing them, renders it unadvisable when the quantity is small.

1st Age.—We will suppose the essay to be made with 1000 worms, which are as many as those who have not much time and space to bestow, can conveniently manage. When a quantity of eggs have produced, the paper should be spread out on a table, and a few twigs, or rather the extremities of the branches of the mulberry tree, with the leaves upon them, should be laid lightly on the worms. They will very soon collect on these, and should then be lifted, twigs and all, and deposited on a clean sheet of foolscap, which will be found to afford them sufficient space during what is called their first age. This paper may be laid on a common watter, the elevated ridges of which will protect the insects from accident; though it is a valuable property of the silk worm never to wander unless in search of food, and if this be properly distributed about the centre of the paper that contains them, there is no danger of their abandoning it. They should be placed near a south or east window, so as to enjoy the light, but be protected from the sun or a current of air. The temperature of the apartment should be kept as near 72° Far. as possible, and the door or window opened occasionally when it exceeds this, or a little fire kindled if it fall much below it. They should also be remote from noise, from odours of every kind, the smell of meats, tobacco, &c., and would, therefore, do best in a room not used by the family. They would, themselves, be offensive in a chamber after they had obtained their third age, but not till then, though in France and Italy, the peasants have them in every part of their dwellings.

When, by means of the twigs, the principal part of the worms have been removed, they should have their first repast, which must consist of the tenderest leaves, cut fine, and so distributed, that the branches may be lifted off when they are forsaken for the fresh food. It will be necessary to feed them four or five times during the day, and once before they are left at bed-time, or oftener, if they be found to consume readily what is given to them. An hour and a half is allowed them to finish their meal, and if this has been sufficient to satisfy them, they remain quiet and appear to sleep. If they are still restless, more leaves must be given, provided they have none remaining, or these have become hard and dry. A little observation will enable the person who attends, very soon, to understand their wants and the quantity of food they require—this will now be very small, and will not exceed a handful or two of leaves per day.

It is desirable that the leaves should be gathered a few hours before they are used, and very important that they be given free from moisture of dew or rain. It is well, therefore, to procure in the evening, what will be required for the following morning, and in the morning, the supply necessary for the evening, so that, if unavoidably wet, they may be spread out on the floor, where the air can circulate freely among them, and soon fit them for use. Drying them in the sun will not do so well; they may also be preserved fresh for several days, by laying them loosely in a large basket, or on a clean board or table, and placing them in a cool cellar, so that provision may always be made against a continuation of wet weather. An opportunity is afforded, a short time after feeding, of removing the decayed leaves, and the stems and fibres which the worms do not eat. This should not be neglected, and is the only cleaning they now require. It is also well to distribute the leaves, at each time of feeding, a little more widely, that the space allotted the worms, may be extended with their growth. When too many are collected upon one spot, a fresh leaf should be thrown them, and when they have attached themselves to it, they may be transferred to fill a vacant space. They should be distributed as evenly as possible over the paper, so as not to incommode or touch each other.

On the third day, they will be found to eat voraciously, and care must be taken to keep them properly supplied, by observing the rules already laid down. It is important to cut the leaves tolerably fine before they are given to the insects, as they feed principally from the edges, and are thus greatly facilitated in obtaining their nourishment.

Towards the close of the fourth day, many of them will be found inert, and on the fifth, they will probably be all in the same condition: this is what is technically called their *mue*, (casting of the skin) and now will be seen, the importance of having had as many protruded at the same time from the egg as possible, as those last hatched will continue to demand food to the annoyance of the early ones, which now refuse it, and only require repose. A little must still be furnished, to maintain the former, until they fall into the same condition, and it is then only necessary to leave them perfectly quiet, and to observe that the temperature of the room is perfectly regulated.

The duration of the *mue*, is quite uncertain. In mine, it was hardly perceptible. Sometimes it lasts for hours, sometimes for days, much depending on the season, the treatment and the quality of the worms. It is, however, a critical period, and requires that every precaution should be taken to prevent their being disturbed

2d. Age.—When the insects begin to revive, they should not be fed too soon. Time should be allowed for a large majority of them to be in a state to require food, before it is furnished, and several hours should be permitted to elapse, rather than lose the opportunity thus afforded of equalizing them. It will now be necessary to increase the space they before occupied, and the expedient of the twigs with leaves may again be resorted to, to transfer them to two clean sheets of paper, and to divide the stock between them—or on three, if they appear crowded; feeding, after they have reposed an hour or two, with leaves cut less fine than before, and removing the twigs when they have been deserted. The paper they left, with the litter remaining on it, should be removed from the apartment.

It is better now, instead of confining the insects to the centre of the sheet, to form them in a band along the middle of it, and to preserve this disposition of them during the rest of their treatment. It will enable them to be fed by laying the leaves on the outside of the bands, and require fewer to be sprinkled over them, which are always oppressive.—These bands may be enlarged, by attracting the worms towards the edges of the paper as they augment in size.

They will require double the food they received in the first age, which may be furnished in the same manner; and when they fall into their second *mue* on the fourth or fifth day, the same precautions should be observed, only affording them, occasionally, a little more air if the weather be fine and warm. Should the door or window be opened once or twice during this age, to reduce the thermometer a degree or two for a short time, it would have a beneficial effect, by producing a change of air in the apartment.

3d. Age.—The insects will now have attained a size that will require for them a further augmentation of space and food. A shelf should, therefore, be provided in a part of the room where they will be protected from the sun, a strong glare of light, or current of air. A corner, adjoining a south or east window, would be the most suitable situation. It may be raised three feet from the ground, and attached to the wall or otherwise supported. If eight feet long by thirty inches wide, it will be sufficient to contain the sheets on which they are subdivided through this and the following age, when another may be added to conclude the experiment. They would do very well on tables, where it is not convenient to erect shelves, and the papers might be dispensed with, placing them on the board, provided it be smooth and dry; but it would then be more difficult to clean them of their litter.

Four or six sheets will now be necessary, to which they may be removed, as before, when recovered from their torpor, and deposited on the shelf, beginning at one end of it and extending the papers along the middle, as the quantity is increased.

They will probably require shifting to fresh papers, once or twice during this age, which is very easily accomplished, by throwing them a few fresh and entire leaves, to which they will soon attach themselves, and thus afford the means of removing them. It may also be necessary to purify the air of the room, which is often offensive, from the quantity of decaying leaves, and the litter of the insects. For this purpose, the following simple process is recommended.

In a plate, saucer, or other open vessel, mix together three tea-spoons full of common salt, and one of the black oxide of manganese, (to be had of any druggist,) and pour thereon two or three spoons full of sulphuric acid, (oil of vitriol,) carry the mixture round the room, that the gas (chlorine) which will immediately be evolved, may be freely circulated. Care should be taken to hold it at arms-length, and above the head, as it is pernicious if inhaled directly into the lungs, though perfectly harmless if breathed in an apartment. A substitute for this, when it cannot conveniently be had, is vinegar, sprinkled lightly over the floor and shelves, or poured on a hot iron, that the fumes may spread through the apartment. By these means, with the occasional admission of air by raising the window to the full during the day, and leaving it up for an inch or two when the nights are sultry, the worms may be kept in good condition, and escape the evils to which they are liable in close and overheated apartments. Moisture is also very injurious to them; it will destroy them if brought in with their food, and renders them sickly and inactive when it prevails in the atmosphere It is, therefore, recommended, to kindle a little fire, of light wood, that will burn briskly with a bright blaze, if a long spell of wet weather should occur, even though it should be warm. They can better withstand heat than humidity, though every precaution should be taken to exempt them from either. In our climate, however, little is to be apprehended on the latter score, at the season of this culture, and the former may be obviated by the judicious admission of air at proper seasons. A piece of gauze or fly net should be used, when the windows are up, to keep out flies and gnats, which are very annoying to silk worms.

On the fourth and fifth days, they have their third *mue*, and their food and treatment are to be regulated as on the former occasions

4th Age.—The treatment during this period, differs very little from the last. The insects will increase rapidly in size and appetite, and must be managed accordingly, dividing them on fresh sheets and augmenting the supply of leaves, which may now be given in larger cuts. They should have four regular meals per day. One very early in the morning, the second about ten, third at three, and the last late in the evening, and it is often necessary to throw them a few leaves in the intervals, especially if they shew signs of hunger by restlessness, and by lifting their heads when approached. The chief art in the management of silk worms, is, in adapting their food to their wants, and this can only be acquired by observation. If they have too little, it retards their growth and operations; if too much, it oppresses them, and adds to the trouble of attending them, by the accumulation of dried leaves remaining unconsumed, which also contribute very much to corrupt the air of the apartment.

It will now be time to put up the second shelf, about two feet above the first, and to remove to it some of the worms, if they appear crowded. If not, it will be ready to receive them after they recover from their fourth and last *mue*, which takes place about the fifth or sixth day.

I repeat, that the time of these *mues* is very uncertain, and have not, therefore, pretended to fix the exact periods of their occurrence or termination. They cannot, however, be mistaken. The worm first refuses food; remains for some hours quite inactive; is then observed to be agitated, to cast its skin, and shortly after to resume its functions. Nature seems to have made this little insect the subject of her ingenuity, and to have contrived these *mues* to augment the display of it. She has given it a covering, which, at first, hangs loosely about it, but which soon becomes too small to contain its bulk, rapidly increased by its voraciousness: with an instinct nearly allied to reason, it abstains for a time from food, that its body may be sufficiently attenuated to pass through the rings into which its skin is divided; then casting forth some glutinous matter, which binds it by one extremity to the surface on which it is placed, it struggles forth at the other, leaving its incumbrance behind, and prepared to run another career of gluttony.

5th Age.—This is the important period in the management of the silk worm, and should have unremitted attention. It has now become valuable, on account of the time and labour bestowed on it, and as it is about to afford the harvest, it should be diligently looked to.

The temperature may now be reduced to about 70° Far. (too much heat having the effect of rendering the worms indolent,) the space increased, and the food given in entire leaves, or merely torn in two. It is said they consume two hundred times the quantity that served them in their first age, and a good stock must, therefore, be brought in at every gathering. In removing them, it is well to keep such as are backward in their recovery, distinct, as they will be later in climbing, and require food longer than the rest.

The decayed leaves should be carefully picked off two or three times a day, and the worms shifted once or twice before they begin to evince a commencement of their labours, which will be in eight or ten days from the *mue*. The last changing should, if possible, take place just before they begin to climb, and the fumigation used at the same time, and as often before as the state of the atmosphere in the room seems to require it.

It will not be difficult to discover when the insects have arrived at maturity. It may be known by many indications. By their crawling over the fresh leaves without nibbling them, and raising their heads as if they had other wants. They become almost transparent, especially on the back, and their necks are shrivelled or wrinkled. Their bodies have a pulp-like appearance, and become shorter and thicker. They are also more disposed to roam than hitherto, and begin to leave silky traces on the papers as they pass over them.

It will now be necessary to afford them the means of forming their cocoons, which may be done, by cutting from the young chestnut trees the extremities of their branches, which are well supplied with leaves, and sticking them in holes bored in the bottom of the upper shelf, so that they may extend down to the lower one, and a few of the leaves rest thereon, that the worms may reach them and climb conveniently. The upper shelf may be provided for, by stretching a line over it, to which the boughs may be suspended and allowed to hang down in the same manner. These boughs must not be placed too thick at first, lest they interfere with the insects that are not yet disposed to mount, and prevent them from finding their food, which must still be furnished them, diminishing the quantity in proportion to their numbers. The shelves should be frequently visited at this period, and boughs continually suspended over such places as require them. If a straggler be found remote from the branches, it may be gently lifted and laid near them, and when any of these appear crowded, they may be removed, with the worms on them, and suspended in some other part of the room, supplying their places with fresh ones. In this manner the insects are not oppressed, and the air can better circulate among them, which it should be permitted to do freely, so soon as they have enveloped themselves in their cocoons.

A few worms may require to be fed for some days after the rest have completed their cocoons, and others will never form any; but this is unavoidable.

Three days and a half are required to complete the cocoons, and on the sixth or seventh they may be detached from the leaves, beginning with the boughs first furnished, which are likely to contain the most perfect. When it is meant to reel them, and this cannot be done immediately, it is necessary to throw them into boiling water, or to bake them in an oven, to destroy the insect, which would otherwise pierce them, when it is transformed into a moth, and spoil them for this purpose.

If it be desired to obtain a stock of eggs, the cocoons, after having been stripped of the loose silk or bur that surrounds them, should be laid on one of the shelves that the worms occupied, selecting as the best, those cocoons of a middle size, of a light straw colour, and which appear hard and of fine texture. The room should be so much darkened, that objects can hardly be discerned across it. In the course of fourteen or eighteen days, or sooner if the weather be warm, the end of the cocoon will become moist, and the butterfly, into which the insect is metamorphosed, will make its appearance. The males may easily be distinguished from the females, as they are much smaller and more active. An equal number of each should be placed together on sheets of paper, and laid on the unoccupied shelf, there to remain for a few hours, when the male may be removed, and the female left to deposit her eggs, which she will soon do on a small spot of the paper. The eggs will at first be of a yellow colour, but will become of a dark hue in the course of two or three days. The papers should be carefully rolled together, and wrapped round with a piece of cloth, to keep them dry, and placed in a cool cellar, to remain until they are wanted for the ensuing season. I am not prepared to say, whether any advantage would be derived from attempting two crops in the same season, which the length of our summers and the property of the mulberry to reproduce its leaves, would enable us to do. Circumstances prevented me from making the experiment last summer; but an acquaintance who tried it, tells me the cocoons were very small. It is probable, the excessive heat may be prejudicial to the insects. I will, however, make the attempt this season, and advise those who have the facilities, to do the same.

To obtain the silk from the cocoons, requires a reel of a particular construction, and as the produce of the number of worms that will be attended by any individual this year, will probably be but small, it will be better to let them come to perfection, that a stock of eggs may be provided for another season.

For the gratification of curiosity, and to shew that this operation is not attended with great difficulty, a few skeins may be run off, by means of the ordinary winding apparatus used in family manufacture. Having first stripped the cocoons of the bur, they are to be thrown into a vessel of hot water, the proper temperature of which is to be found by experience. If too great, it will render the thread brittle; if not warm enough to dissolve the gummy matter which abounds in it, it will come off with difficulty. A few degrees below the boiling point will be most suitable, and when this is attained, the balls are to be stirred round with a small whisp, or the feathered end of a quill, until the threads attach to it; lifting these, and drawing them a few times with the hands, the balls remaining on the water until they run well, they may be made fast to the reel and wound off without trouble, if only two or three cocoons are united to form the thread. This will be sufficient to ascertain the quality of the silk, though for the purposes of the manufacturer, so small a thread would hardly answer In this state, when properly and carefully reeled, it is worth four to five dollars per pound, and the bur or loose silk, that which is thrown aside in reeling, as well as the pierced cocoons, will all be valuable.

A reel, with the art of using it, will be indispensable in every establishment, where the production of silk is undertaken. This machine, which is not costly, and for which I can at any time furnish a model, is the only item of expense necessary to the business. The eggs may easily be procured: there is scarcely a farm that has not many fine mulberry trees upon it, or some vacant field or fence row, where they might be planted: scarcely a dwelling that has not some spare corner, or a family where there are not unemployed females and children, whose services might thus be rendered productive, and who, in this light and interesting occupation, would meet a better reward for their industry in two months, than the various small objects on which they now bestow it, would obtain for them in twelve. They will find it a pursuit, uniting amusement with the prospect of gain, and particularly adapted to those situations of life, where capital is scarce and employment uncertain.

The success which has rewarded our enterprise in many of the useful arts, so long considered as peculiar to European ingenuity, encourages me to believe, that this important branch may be advantageously undertaken—prompted to it, as we are, by the suitableness of our climate, the luxuriance of our foliage, and the increasing necessities of our population. W. B. BUCHANAN.

Warren, March, 1828.

AGRICULTURE.

(From a late English paper.)

AGRICULTURE, TRADE, &c.

The average product of an acre of wheat in Van Dieman's Land is twenty bushels; and the expense of production, independent of quit-rent, is 4l. 10s.

A shrub has been discovered in our new Indian territories, from whose stem, when divided, there issues a copious vegetable spring of limpid and wholesome water. The natives know this well, and hence we rarely meet with an entire plant. It is a powerful climber, and is quite new and non-descript.

At the late Edinburgh agricultural meeting, at which above three hundred noblemen and gentlemen attended, Sir John Sinclair addressed the party after breakfast, and informed them that a great part of the bread which they had been eating was composed chiefly of potato flour, and if the public would be contented with such bread, Britain never would require a bushel of foreign grain.

Accounts from the Cape of Good Hope mention a great improvement in the wines of that colony; some of the planters, who had looked more to quality than to quantity, have been induced to adopt the French and German system in their vineyards, and the result has exceeded the most sanguine expectations. It is a singular fact, that much white Cape, has been imported into France, and after proper reduction by means of full-bodied wines of native growth, been sold to English connoisseurs as genuine East India Madeira.

THE POTATO.

The history of the potato conveys to us a most instructive lesson, forcibly reminding us of the extraordinary lengths to which prejudice will carry mankind, and showing us by what apparently trivial circumstances this prejudice is often removed, when the most powerful and influential arguments have failed to weaken it. The introduction of this valuable root to the gardens and tables of the people, received, for more than two centuries, an unexampled opposition from vulgar prejudices, which all the philosophy of the age was unable to dissipate, until Louis XV. of France wore a bunch of the flowers of the potato in the midst of his court on a day of festivity; the people then, for the first time, obsequiously acknowledged its usefulness, and its cultivation, as an article of food, soon became universal. Now, its stalk, considered as a textile plant, produces, in Austria, a cottony flax. In Sweden, sugar is extracted from its roots. By combustion its different parts yield a considerable quantity of potass. Its apples, when ripe, ferment and yield vinegar by exposure, or spirit by distillation. Its tubercles made into pulp, are a substitute for soap in bleaching. Cooked by steam, the potato is one of the most wholesome and nutritious, and, at the same time, the most economical of all vegetable aliments. By different manipulations it furnishes two kinds of flour, a gruel, and a parenchyma, which, in times of scarcity, may be made into bread, or applied to increase the bulk of bread from grain; and its starch is little, if at all, inferior to the Indian arrow-root. Such are the numerous resources which this invaluable plan is calculated to furnish.

INCREASED CULTIVATION OF THE POTATO RECOMMENDED.

We observe, by an Edinburg paper, that Sir John Sinclair has just published a series of calculations, on the produce and value of a potato crop, and on the means by which an increased cultivation of that valuable vegetable may render the country independent of a foreign aid for food in case of need. Sir John declares his objects to be, 1. To excite a spirit for the cultivation of potatoes: 2. To ascertain the best sorts: 3. To discover the best modes of obtaining and preserving the farina of potatoes: 4. To establish manufactories for making farina: 5. To communicate to bakers the advantage of using potatoes properly prepared: and, 6. To impress on the public mind the superiority of the species of bread recommended, on the score of health. Having here stated the substance of the worthy baronet's wishes upon the subject, we proceed to lay before the reader of the *Chronicle* his "calculations." He tells us that—

An English acre of potatoes, when properly cultivated, produces, on an average, 216 bushels, which, at 75 lbs. per bushel, amounts, in all, 16,200 lbs. per acre. Of this weight, only one-fourth consists of solid matter, either, 1. Farina or flour; or 2, Fibre.

1. *The Farina*—The quantity of farina varies according to the sort,—the soil,—and the season; but, on the whole, it may be stated, that about one-sixth part of the contents of the raw potato consists of farina, and the half of that weight of fibre. The produce of an English acre of potatoes, therefore, contains of

Farina	2,750 lbs.
Fibre	1,350 "
Solid matter	4,100 "
Liquid matter . .	12,100 "
Total	16,200 "

The farina of an acre of potatoes, at 3d. per lb. would produce 34l. 7s. 6d.: at 2d. 22l. 18s. 4d.: and at 1d. 11l. 9s. 2d. There are four modes in which the farina might be used as food. 1st. Mixing it with wheaten flour, in its dry state, in the manufacture of bread. But in this shape it is difficult to do it equally, or to preserve it properly mixed with the wheaten flour in baking, owing to its greater weight. 2. Converting it into jelly, in the same manner as arrow root, and taking it with milk for breakfast or supper. 3d. Farina jelly, however, being rich and glutinous by itself, it is a great improvement, when it is boiling, gradually to mix with it one or two table spoonsful of wheaten flour, oatmeal, barleymeal, ground rice, or the flour of Indian corn, stirring it all the time, that the two substances may be thoroughly incorporated. *This makes a pleasant, nourishing and substantial diet,* which cannot be too much recommended, particularly for invalids. It may be taken either with or without milk. 4th. Converting the farina *into jelly,* and then mixing it with wheaten flour, in the manufacture of bread. This "*Farina Bread,*" as it may be called, is pleasant to eat, light, and easily digested, and any defects in the flour, arising from an unfavourable season, are corrected, by the rich and glutinous matter thus incorporated with it. This is a new idea, which fortunately occurred to the author of this paper; and it is perhaps the greatest discovery that has recently been made in baking, for it renders the flour of even new wheat fit for immediate consumption. It is proper here to observe, that the value of the farina, when converted into jelly *as food,* has not been sufficiently appreciated. It thus undergoes a *chemical process,* which seems greatly to augment its nutritive powers. This may be partly owing to the farina being cleared of that dark and bitter liquid with which it is originally impregnated, instead of which, it is incorporated with pure and wholesome water, all the particles of which, when gelatinized, become convertible into animal matter, by the efforts of the stomach.

II. *The Fibre.*—The fibre of the potato is of much inferior value to the farina. At 1d. per lb. 1350 lbs. of fibre would produce 5l. 12s. 6d. and ½d. 2l. 16s. 3d. With a mixture of wheaten flour, it makes excellent household bread or puddings, and is likewise applicable to various other useful purposes; for, thoroughly washed, it may be given to cows, or pigs, and, if dried, to horses.

III. *Value of an acre of Potatoes compared with Wheat.*—The value of an English acre of potatoes, therefore, the farina at 3d. per lb. and the fibre at 1d, is 40l.: at 2d. per lb. for the farina, and 1d. per lb. for the fibre, amounts to 28l. 10s. 10d., and at the low rate of 1d. per lb. for the farina, and ½d. for the fibre, would be 14l. 5s. 6d.—Wheat, that great object of the farmer at present, can bear no comparison with a crop of potatoes in point of value. Stating the produce at 24 bushels per English acre. and the price at even 7s. per bushel, it would only amount to 8l. 8s. per English, and 10l. 18s. 2½d. per Scotch acre, to which from 2l. to 2l. 10s. per acre may be added as the value of the straw. But still the value of a crop of wheat is inferior, and in many cases cannot be obtained without a previous year's fallow; while during its growth, it is unfortunately liable to numerous risks, from insects, diseases, precarious harvests, &c.

IV. *Number of acres in Potatoes equal to a million of quarters of Wheat.*—We shall next proceed to calculate the number of acres, which, if cultivated with potatoes, would supply all the materials necessary to be employed in the manufacture of bread, and would render us independent of other nations for that essential article. The average annual consumption of wheat in this country is calculated to be ten millions of quarters, every ounce of which might be raised in this country, if its agriculture were adequately encouraged. But let us suppose, that it may become necessary to procure even a million of quarters from foreign countries. To raise that million of quarters at 24 bushels per acre, would require about 330,000 acres. But an acre of potatoes, would feed more than double the number of human beings when contrasted with an acre of wheat; consequently, only 165,000 acres in potatoes would prevent the necessity of any importation of foreign wheat, for making bread. It cannot be doubted, for a moment, that it would be practicable, *if necessary*, to procure many times that amount.

Hints to the Directors of Public Establishments—as to the best means of employing Potatoes as Food, to the persons under their management. (*From Sir John Sinclair.*) The Directors of any public establishment might easily try the following experiment: Get any quantity (a sack or a boll,) of potatoes, and wash them; then scoop out the eyes and scrape off the skin, which contains much of that black liquid with which raw potatoes are so much impregnated; then grate them by a hand grater; then, by any common strainer, separate the farina from the fibre; then wash these substances separately seven or eight times, until the water becomes quite clear; then dry them separately in a stove, or before the fire, or in the sun, and weigh them. When the farina is quite dry, take a portion of it to the amount of two table spoonsfull, damp it with cold water, and convert it into jelly *by boiling water*, stirring it about while on the fire, and mixing with it a couple of table spoonsfull, either of wheaten flour or oat meal. This diet, with a little milk, is cheap and wholesome, particularly for the young, the aged, and the sickly. To healthy people, the addition of bread, cheese, or meat will be required. The fibre may either be ground into meal, or made into puddings; or, with wheaten flour, into bread, after the recipe of Mr. Jefcoat, of Newcastle. It would be very desirable to ascertain the expense of a meal to a full grown-up person, as thus prepared.

Directions to be observed in making bread with the fibre of Potatoes—by Mr. Jefcoat, of Gateshead, Newcastle, (Tyne.) To six pounds of potato fibre, add the usual quantity of yeast; put into that a pint of warm water, mix them well, and let it stand an hour, or longer, if convenient, to ferment. Then work a stone of wheat flour into the mixture, adding the usual portion of salt. If the dough should be too stiff, work in a little water; let it stand a little longer to heave, before it is put into the oven to bake. An excellent pudding may be made with the potato fibre thus: Boil a pound of it in a quart of skim milk for half an hour, then add two ounces of suet minced small, two or three eggs, and sweeten it as a rice pudding; then take it, or place it to brown before the fire.

☞It has been ascertained that salt added in moderate quantity to dung, say at the rate of 20 bushels per acre, adds considerably to the potato crop, by assisting the decomposition of the dung, and by imbibing moisture from the atmosphere, and retaining it. In dry soils and seasons, this is found peculiarly beneficial. The addition of salt, in the same rate, (or of sea-ware where it can be had,) mixed with the dung, would be of the most essential benefit to the crop of turnips.

COTTON TRADE.

[☞The Editor of the (Huntsville) Southern Advocate of the 21st ult. in publishing the article on "*the present state and future prospects of the cotton market,*" which appeared in the American Farmer of the 14th ult. vol. 9, p. 411—makes the following judicious suggestions.]

"The fact is, the *cotton* market is overstocked, and must inevitably continue so, as long as the article is cultivated to such increasing amount, as it has been for several years past.

"To prove this position we have only to advert for a moment to a short statement of facts. The total crop of cotton in the United States

"For the year	1824-5	569,240 bales,
"	1825-6	720,027 "
"	1826-7	957,281 "

"The supposed consumption of the whole of Europe and the United States, is estimated at 1,250,000 bales. Take then the crop of the United States for the year 1827, and let it increase in the same ratio for three succeeding years, that it has in those preceding, and it will be more than sufficient to supply the whole demand, of the consumers, without taking into consideration the large quantities raised in South America, the West Indies and other places.

"It is in vain to answer this, by saying that the consumption of cotton goods will increase in proportion to the growth of the raw material, experience has proved the contrary.

"We have more than once, heretofore adverted to this subject, and endeavored to impress upon the southern planters, the necessity of turning a part of their capital and labor to some other pursuit, than the growing of cotton—to raising more of the necessaries of life—to the cultivation of small grain, to the raising of cattle, horses, &c. and to the manufacturing of cotton bagging, and clothing for the slaves."

SHEEP AND WOOL.

(Further translations from the "Bulletin des Sciences.")

Dry pastures, fallow fields, and lands covered with stubble, afford the best nourishment for sheep. The plants and grasses that grow on marshy, boggy soils, commonly contain acid, deleterious substances which occasion diseases. Disorders are also produced by the grass being too often wet by the dew, or by frequent rains. Many sheep farmers believe that their flocks have no need of drink when they are in pastures. This opinion is erroneous. It is seldom that plants contain juice enough to quench their thirst. [There are different opinions on this subject here as well as in Germany. We have known sheep kept in a pasture, where there was no water, for six or eight weeks in succession, in a dry season; they appeared to thrive, and when put into another pasture where there was water, manifested no desire to drink.]

Acorns and the leaves of the elm and poplar are excellent food in the winter, to correct the disposition which sheep may have to the scab and other diseases. Many people give their sheep grain, in order to increase their gain in wool. They are in error; grain increases the greasiness and quantity of the wool, but makes it coarser, and thereby diminishes the value of the fleece. Sheep require cleanliness and air; in dry weather they do not need to be shut up, for they fear the cold less than any other animal. The practice of keeping sheep confined among heaps of manure, deprived of air and exercise, is a fatal one.

The greatest market for wool is that of Breslau, in Prussian Silesia. The quantity brought to the fairs in that city, in June and October, 1820, was 190,000 bales. There are annual fairs for the sale of wool, &c. at Berlio, Dantzig, Magdeburg, Leipsing, Bautzen, Vienna, Pest, &c. Much of the wool of Germany is exported to England.

IMPROVED BREED OF CATTLE.

Harrisburg, (Penn.) March 27.

Yesterday morning, the Durham short-horned cattle, heretofore noticed, reached this place from York, and we were much gratified to observe so many of the farmers of Cumberland and Dauphin in town to examine them. The cattle consisted of the four year old bull Yorkshire, and the cow Hebe, of the same age; the two year old bull Hector, and the yearling bull Sultan—all derived from the celebrated English bull Comet, whose stock has been imported into this country by J. H. Powel, Esq. of Philadelphia. The members of the legislature, many of whom are practical farmers, as well as farmers of this neighboorhood, had an opportunity of examining these animals, and we heard but one opinion of their superiority in all the valuable points. The four year olds, Yorkshire and Hebe, have been purchased of C. A. Barnitz, Esq., of York, by Dr. T. Whiteside, who proposes taking them to his farm and mill on Lost creek, in Mifflin co.—the remainder, owned by Mr. Barnitz, will retura to York to-morrow; that gentleman having caused them to be driven hither for the single purpose of showing what improvement can be made in the breed of horned cattle, and to incite others to more attention than has been bestowed upon this necessary and useful race of domestic animals. Mr. Barnitz is certainly entitled to the thanks of the agricultural community for his enterprise in introducing the Durham short horns into the middle counties, and for the trouble and expense that he has incurred in having them brought to Harrisburg for more extensive inspection and examination.

COTTON SEED WHISKEY.

This modern discovery, like many others, was accidental. The gentleman, a Mr. John Gray, of Georgia, in a careless moment, suffered his cotton seed and corn to be thrown together; and corn being scarce, he threw the cotton seed with the corn into the brewery. The result, viz: the quantity of whiskey, arrested his attentinn. He then mixed half and half, and finally sold without any detection in the taste. He then went on to try all cotton seed, throwing a peck of meal into each hogshead, to cause fermentation. This produced a vigorous extrication of gas; and a large quantity of oil, bland and of drying quality well suited for painting, was produced; and the quantity of whiskey was extraordinary from the cotton seed.—*Alabama Jour.*

Valuable Manure.

The refuse matter of gas-works, called coal-tar, has been found to be a powerful manure for arable land. This substance, which is so highly offensive in its crude state, from disengaging sulphuretted hydrogen gas, on being mixed with sand, chalk, &c. as a compost, the noxious gasses are retained, while the liquid carbonic matter forms a most powerful promoter of vegetation. The more recently this manure can be applied the better, from its fugacious properties.

Information for Manufacturers, &c.

Transactions in Wool, Domestic Goods, &c.—Whitney, Chabot & Co., Central street, Boston, deal very extensively in wool and domestic goods. They have a wool stapling establishment in that city, where about 250,000 pounds of American fleece wool are assorted annually, by the most experienced staplers, who have been regularly bred to the business. The quality of the wool assorted there, is warranted equal to a fixed standard. They usually have for sale, on consignment, most descriptions of American and foreign wool, to which they devote particular attention. As buying and selling agents, they transact business for five extensive manufacturing establishments, viz: Elliot Manufacturing Company, fine shirting cotton. Strowbridge factory, coarse sheetings. Pittsfield Manufacturing Company, sheetings and shirtings. New England do., (for which they purchase American flax in lots over 1000 pounds,) twine, cotton bagging, shoe thread and carpet warp. Lowell do., carpet, coarse coloured cottons. American broad cloths, sattinets and cassimeres, besides a variety of foreign merchandize, are constantly kept on hand for sale, and a general commission business is transacted by them. They now offer for sale, 700 bales coarse wool, 150 fine fleece, 50 fine Saxony, 25 Spanish, 50 flannel lambs, &c., comprising Saxony, Portuguese, Spanish, Peruvian, American fleece, flannel and lamb's pulled wool. Also, 45 seroons of indigo.

[*American and Microcosm.*

To destroy Weevil among Grain.—Lay fleeces of wool, which have not been scoured, on the grain the oily matter attracts insects among the wool, where they soon die—from what cause is not exactly known. M. Payandeau related to the Philomathic society, that his father made the discovery in 1811, and bad practised it on a large scale since.

[*Bull. des Science Agricoles, Juill.* 26, 1826, *p.* 24.

COTTON SEED.

We find in the Charleston Courier, an article addressed to the planters of Carolina and Georgia, making the inquiry, when cotton seed was first introduced into this country, by whom introduced, and for what purpose, whether as an experiment merely or with a view to the production of the article as an object of profit. For the best essay on these points, founded on well-authenticated facts, a medal worth twenty dollars is offered; and for the second best essay, a medal worth ten dollars.

Those who wish to enter the lists of competition for the prize, are requested to forward their productions to the editor of the Courier by the first of June next.

RURAL ECONOMY.

IMPROVED BEE HIVE.

J. S. Skinner, Esq. *Fredericksburg, 3d April, 1828.*

Sir—In a late excursion through some of the back counties of this state, I accidentally met with a bee hive, the construction of which was so very simple, and answered the purpose so admirably, that I determined at once to take a memorandum of the dimensions, &c. with the intention of forwarding it to you on my return home, fearing however that a written description might not be understood, I defered sending the memorandum until I could make a kind of model to accompany it, and having at length accomplished the task, I take the liberty to forward it to you. I have merely to add, that the gentleman who furnished the memorandum, has made trial of these boxes for seven years past, and assures me they answer his highest expectation.

A. H.

Memorandum for its Construction.

The box to be made of inch plank, say two feet three inches by twelve inches in width, the upper part of the box is to be divided off, allowing a space just sufficient to admit a drawer, say about 8 by 10 inches in front; the drawer is to slide upon a partition made to fit the inside of the box exactly, and through the middle of this partition, a hole is to be made, and a corresponding one in the bottom of the drawer, (about one and a fourth inch diameter) so as to allow the bees to pass from the lower part of the box into the drawer, a pane of glass is to be fitted in the outer side of the drawer, say 8 by 10, and a sliding shutter is to be made so as to secure the glass and exclude the light. When the honey is wanted for use, first ascertain, through the pane of glass, that the drawer is filled, then introduce a little smoke into the top of the drawer, in the usual way by means of a common tobacco pipe; and when the bees have all descended into the lower part of the hive, separate the bottom of the drawer and the partition with a case knife, remove the drawer, and empty the honey, and return the drawer to its place, when the bees will commence working. On this plan the honey will always be obtained pure, without bee-bread or dead bees, and not a single bee will be destroyed.

[The model may be seen at the office of the American Farmer, and the gentleman who forwarded it will please accept our thanks for his attention—may he long enjoy the sweets of this life, without any of the stings that too often accompany them.]

Tide Mills of Easton, Md.—A Mr. Robert Spedden has obtained a patent for a *tide mill*, which is represented as adequate to the ordinary purpose of grinding and propelling machinery in factories. It is intended to be used in small creeks or inlets, and cannot fail to be of great utility in level countries, or in those sections where running streams are not abundant.

INTERNAL IMPROVEMENT.

Baltimore and Susquehanna Rail-road Company.

The stock subscription books of the Baltimore and Susquehanna Rail-road company, were finally closed on Saturday, when it appeared that the whole number of shares subscribed, in this city only, was within a fraction of *thirty-four thousand.* On Saturday alone, between twenty four and twenty-five thousand shares were taken. It is not yet ascertained what amount has been subscribed at York. The charter of the company authorises but fourteen thousand shares by individual subscription, so that without including the York subscription, there is an excess of twenty thousand shares subscribed beyond the amount required. [The subscription at York was less than 200 shares.]

[*Baltimore American.*

RAIL-WAY.

A wager, for a small amount, as to the power of draught of a horse on the Monkland and Kirkintilloch rail-way, was decided in presence of several of the members of the committee of management of the railway, and a great crowd of spectators. The horse in question started from Gargil Coliery, drawing a weight of fifty tons, on fourteen wagons, which it conveyed to Kirkintilloch, a distance of seven miles, in the short space of one hour and forty-one minutes. The first two miles of the above distance was on a level, and the remainder was on a descent, varying from one in 120 to 1,100 with several level tracts. [*Glasgow Chronicle.*

INTERNAL NAVIGATION.

Williamsport, (Lycoming co.) April 2.

The Union Canal is at present in complete navigable order, and we perceive by the papers, that at Middletown, the junction of the Union and Pennsylvania Canals, boats and arks laden with the produce of the country, arrive daily, and either deposite their cargoes, or dispose of them at a price equal, if not superior to what could be obtained by going further. Several mercantile houses from Philadelphia have established themselves contiguous to the junction of the canal, and are giving handsome prices for all kinds of grain, lumber, &c. which will evidently be the means of entirely stopping that extensive trade which has hitherto found a market at Baltimore. From this quarter we find a general disposition in our merchants to try this new route to market; and should sufficient capital be found at Middletown to answer the purpose, and the prices advantageous, but little doubt can remain of the entire trade of the Susquehanna being diverted from its usual course.

Rate of Tolls in England on Canals.

Upon the Fazeley, Coventry, and Oxford canals, the parliamentary tonnage is, on general merchandize, for seventy-one miles, nine shillings and eleven pence, ($2 21,) or about three half pence (3 cts.,) per ton per mile, and on coals, five shilling and six pence, ($1.22,) or not quite a penny (1¾ cents,) per ton per mile.

Upon the Birmingham, Warwick, Napton, and Oxford canals, (a part of which line we believe to be the highest known before the last Chester act,) the parliamentary tonnage on merchandize for forty-six miles is nine shillings and four pence, ($2 08) or two pence halfpenny (4½ cents,) per ton per mile, and on coals, is seven shillings and nine pence, ($1 73,) or two pence (3¾ cents,) per ton per mile.

Upon the Birmingham, Worcester, Stratford, and *intended canal,* the parliamentary tonnage is, on general merchandize, for forty-five miles, five shillings and two pence, ($1 15,) or a penny and one third (2½ cents,) per ton per mile, and on coals, iron and castings, is four shillings and two pence, (93 cents,) or a penny and one-ninth (2 cents,) per ton per mile.

Upon the Wirral branch, the parliamentary tonnage is, on merchandize for nine miles, four shillings and three pence, (95 cents,) or five pence three farthings (10½ cents,) per ton per mile, and on freestone, timber, slate, pig and bar iron, iron stone, pig lead and lead ore, three shillings and six pence (78 cents,) or four pence halfpenny (8⅔ cents,) per ton per mile.

LADIES' DEPARTMENT.

WOMAN.

Woman—gentle woman, has a heart
Fraught with the sweet humanities of life.
Swayed by no selfish aim, she bears her part
In all our joys and woes; in pain and strife
Fonder and still more faithful! When the smart
Of care assails the bosom—or the knife
Of "keen endurance" cuts us to the soul,—
First to support us—foremost to console!

Oh! what were man in dark misfortune's hour
Without her cherishing aid—a nerveless thing,
Sinking ignobly 'neath the passing power
Of every blast of fortune. She can bring
"A balm for every wound:" as when the shower
More heavily falls, the bird of eve will sing
In richer notes; sweeter is woman's voice
When through the storm it bids the soul rejoice.

Is there a sight more touching and sublime
Than to behold a creature, who, till grief
Had taught her lofty spirit how to climb
Above vexation; and whose fragile leaf,
Whilst yet 'twas blooming in a genial clime,
Trembled at every breath, and sought relief
If Heaven but seemed to lour,—suddenly
Grow vigorous in misfortune, and defy

The pelting storm that in its might comes down
To beat it to the earth;—to see a rose
Which in its summer's gaiety a frown
Hath withered from its stem, 'mid wintry snows
Lift up its head, undrooping, as if grown
Familiar with each chilling blast that blows
Across the waste of life—and view it twine
Around man's rugged trunk its arms divine!

It is a glorious spectacle: a sight,
Of power to stir the chords of generous hearts
To feeling's finest issues; and requite
The bosom for all world-inflicted smarts.
Such is dear woman! When the envious blight
Of fate descends upon her, it imparts
New worth—new grace;—so precious odours grow
Sweeter when crushed—more fragrant in their wo!

So much for man's sweet consort,—Heaven' best gift,
Beloved and loving woman!

Thoughts upon Female Education.

The branches of literature most essential for a young lady in this country, appear to be,

1. A knowledge of the English language. She should not only read, but speak and spell it correctly; and, to enable her to do this, she should be taught the English grammar, and be frequently examined in applying its rules in common conversation.

2. Pleasure and interest conspire to make the writing of a fair and legible hand, a necessary branch of a lady's education—on this head I have only to add, that the Italian and inverted hands, which are read with difficulty, are by no means accommodated to the active state of business in America, or to the simplicity of a republican.

3. Some knowledge of figures and book-keeping is absolutely necessary to qualify a young lady for the duties which await her in this country. There are certain occupations, in which she may assist her husband with this knowledge, and should she survive him, and agreeably to the custom of our country, be the executrix of his will, she cannot fail of deriving immense advantage from it.

4. An acquaintance with geography, and some instruction in chronology, will enable a young lady to read history, biography and travels, with advantage, and thereby qualify her, not only for a general intercourse with the world, but to be an agreeable companion for a sensible man. To these branches of knowledge, may be added, in some instances, a general acquaintance with the first principles of astronomy, natural philosophy, and chemistry, particularly with such parts of them as are calculated to prevent superstition, by explaining the causes, or obviating the effects of natural evil, and such as are capable of being applied to domestic or culinary purposes.

SPORTING OLIO.

(From the Annals of Sporting, for January, 1828.)

A Trotting Match

Took place, on Tuesday, November 20, to decide a bet of 500 sovereigns, Captain James undertaking, for that wager, to trot his mare seventeen miles in one hour. It took place upon a fine two-mile piece, near Maidenhead. At starting, betting was five to four in the Captain's favour; but he lost the match by two minutes and fifty-four seconds. The mare broke into a gallop three times. After the first eight miles were done, betting was six to one against the mare, and no takers. Nothing daunted, however, Captain James undertook, for a wager of 200 guineas, to trot his horse Carol, twenty-two miles in one hour and a half. The match came off on Saturday, on a five mile piece of ground near Maidenhead. It was done as follows:—

		M	S.
First four miles . . .		14	2
Second ditto ditto . . .		15	30
Third ditto ditto . . .		16	40
Fourth ditto ditto . . .		17	32
Fifth ditto ditto . . .		17	50
Remaining two miles . . .		8	56
Hour	1	30	30

The Captain would, probably, have won, had not the horse broke into a gallop in the tenth mile, before which time he was freely backed to win at six and seven to four.

Walking.

On Tuesday, Dec. 4, Capt Harris, a gentleman of fortune, undertook to decide a wager of 200 guineas, to walk from Maidstone to London bridge, a distance of 36 miles, in nine hours. The undertaking was great, and betting six to four against time. He started at six o'clock in the morning, and reached London-bridge in eight hours and fifty minutes, thus winning by ten minutes. He was dreadfully fatigued.

There are, near Hornby Castle, the seat of the Duke of Leeds, in Yorkshire, not less than a thousand bridle gates, put up by his grace for the accommodation of sportsmen.

(From the German of Schultze.)

LIFE'S CHASE.

The chief of the huntsmen is Death, whose aim
Soon levels the brave and the craven;
He crimsons the field with the blood of his game,
But the booty he leaves to the raven.
Like the stormy tempest that flies so fast,
O'er moor and mountain he gallops fast!
Man shakes
And quakes
At his bugle blast.

But what boots it, my friends, from the hunter to flee,
Who shoots with the shafts of the grave?
Far better to meet him thus manfully,
The brave by the side of the brave!
And when against us he shall turn his brand,
With his face to his foe let each hero stand,
And await
His fate
From a hero's hand.

Old thorough bred Hounds.

Lord Fitzwilliam has now at Milton-park two very large red and white blood-hounds, which are kept for the purpose of finding the outlying deer that break park. His lordship has offered the use of these hounds to such of his tenantry as may have sheep slaughtered and taken away from their grounds. They are unerring in tracking a sheep from the spot where it is killed to the place where the carcase is secreted.

Pedigree of Young Paul Jones.

Young Paul Jones will cover mares this season, at the Elk-ridge Ferry, in Baltimore county, on the stage road from Baltimore to Alexandria, at eight dollars the season. He is a beautiful bay, fifteen hands high, with black mane, tail and legs, his hind feet white, and is five years old this spring. He was got by General Morgan's Paul Jones, whose pedigree is as follows: Old Paul Jones was got by Specimen, who was got by Old Fearnought, out of Jenny Dismal and full brother to Fitzhugh's Regulus and Harris's Eclipse—his dam was got by Wild Deer (that was taken back to England, and covered at fifty guineas the season and ten guineas the single leap,) out of Delancie's old Cub Mare. Young Paul Jones's dam was got by Marius; Marius was got by Selim, and his dam imported; his grand dam was got by Old Silverheels, his great grand dam was got by Colonel Carter's Crab, on a barb mare. Good pasturage may be had for mares at two shillings and six pence per week, but will not be answerable for accidents or escapes.

SAMUEL NORWOOD.

February 28, 1794.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 11, 1828.

☞We always prefer, if possible, to publish valuable essays entire, rather than divide them; hence we have inserted in this number the whole of the OBSERVATIONS ON THE SILK WORM, with which the publick has been favoured by Mr. W. B Buchanan. It was the more necessary, too, to present it at once, to the exclusion of other communications, because the time will be at hand in some parts of the country, when this paper arrives, to commence the culture, by the plain and clear directions here given. It is not only for the matter of the essay, which will at this time be peculiarly acceptable, that we thank the writer, but we take leave to recommend the manner and style of it—plain, direct, easily understood, and without a long circumlocutory preface; as worthy of example to those who write for practical and general use.

Society to Promote the Culture of Silk.

[A society has been formed in Philadelphia to promote the cultivation of silk in this country—and with auspicious promptitude they have already offered the following Premiums:]

At a meeting of the Pennsylvania Society for the Promotion of the Culture of the Mulberry and the Raising of Silk Worms, April 2, 1828:

On motion, *Resolved*, That the following premiums be offered by the Society, in order to promote the objects for which it is organized.

1. A premium of sixty dollars for the greatest quantity of sewing silk, of the best quality, produced within this state, from cocoons raised within the same, and produced by one family, not less than twenty pounds. Forty dollars for the next greatest quantity and best quality, produced under the same conditions, not less than fifteen pounds; and twenty-five dollars for the next greatest quantity and best quality, not less than ten pounds.

2. A premium of fifty dollars for the greatest quantity of good cocoons, raised within this state, not less than one hundred pounds; thirty dollars for the next greatest quantity, not less than fifty pounds; to be claimed before the 1st of September.

3. A premium of fifty dollars for the largest number of the best white mulberry trees, raised within twelve miles of this city, not less than four hundred; thirty dollars for the next greatest quantity, not less than three hundred; and twenty dollars for the next greatest quantity, not less than two hundred.

The trees to be of two years growth—and planted at about equal distances—say about twenty-five feet apart.

The premiums for the mulberry trees to be claimed within three years from the second day of April, 1828 BENJ. R. MORGAN, President.

M. CAREY, Secretary.

☞Doctor Joseph E. Muse, the scientific and public spirited President of the Dorchester Agricultural Society, has on hand, for the present year, nineteen different sorts of crops, *chiefly* new. His views are, a final selection for *himself* and *tenants* of a new and large *series*.

☞We are much delighted to learn, by a letter from his father, that Mr. S. W Pomeroy, jr. who was left with the boat's crew of the ship Star of Philadelphia, on a desolate island near Cape Horn, and was supposed to have perished, was taken off by the brig Alabama Packet, and all have safely arrived at Valparaiso. Mr. Pomeroy is one of the most estimable young men that our country can boast.—What must have been the feelings of parents and sisters on the receipt of the joyful intelligence!—What inexpressible pleasure would it have afforded even to have been the bearer of the glad tidings.

☞Whilst many of our good friends are sending in, according to the terms of this paper, their subscription in *advance*, many others, no less friendly in disposition, forget to send what is due for the *past*. To all such we tender the sincere assurance, that to send what they owe, by an early mail at our risk, will at this time lay us under particular obligations; for the want of it, we cannot have executed the costly engravings with which we wish to illustrate various subjects in the current volume.

☞Mr. LEWIS HILL, Collector for this office, will shortly call upon our subscribers in *North Carolina* for the amounts due from them.

☞Wanted, to borrow, or get in exchange for the American Farmer, DANIELS' RURAL SPORTS Any gentleman who has a copy that he is unwilling to dispose of, would lay us under an obligation by the loan of the above work.

☞The Editor has been warned by a correspondent in Alabama, that what Mr. Herbemont observes in relation to the pruning of vines, after they have put out in the spring, will not hold good previous to their putting out and after the sap is rising freely. I have known, says he, a gentleman to lose all he had by late pruning, and I have preserved some by a paste made of charcoal and tallow, rubbed firmly on the fresh cut. The charcoal should be finely pulverized before mixed.

☞The revenue to the general government, accruing from the commerce of Boston, for twenty days, is stated to have been *more than half a million of dollars*. The duties on a single cargo from Havre amounted to $80,000!!

☞It was not until the 2d April, that the Albany papers announced the letting in of the water throughout the whole line of the grand canal. There has then been an interruption, we suppose, of nearly five months! MEM. It is to be remarked, that the authority to make a rail-way from Schenectady to Albany, has not been exercised, and the impression is, that although the line of the rail-way would be not more than half the distance of the canal line between those points, nevertheless the rail-road would take nothing from the canal except *passengers*.

☞OIL AND COAL GAS.—At Edinburgh, says an English paper, coal gas, is manufactured at a total expense of 8s per 1000 cubic feet, and sold for 12.; oil gas costs 26s per 1000 cubic feet in manufacturing, valuing the oil at 2s per gallon In 1824, the extent of gas pipe in and about London, exceeded 900 miles.

☞What must be the state of the publick taste and morals of a country where Editors of papers, who ought to be good judges of both, consult and gratify them by annunciations like this, from a late English journal?

"THE FANCY AT FAULT.—The fight which was to have been decided on the Common near Shankey Chapel, in the neighbourhood of Warrington, between Stockman of the London ring, and Fisher of Liverpool, for 25 sovs. aside, the former to give one stone, did not take place, in consequence of Fisher refusing to be weighed. There were about four thousand persons assembled, and the Pet of the Fancy, Dick Curtis, and Young Dutch Sam, second and bottle holder to Stockman, were present; also Boscow, the butcher, and Magee, who were to have performed the same *kind* offices for Fisher. The motly crowd were determined not to be altogether disappointed, and therefore started several battles to amuse the company on the ground."

Foreign Intelligence.

The ship Fania, at Boston on Friday last, sailed on the 2d March, from the Cove of Cork, furnishing London dates to Tuesday, Feb. 26. The Cork Chronicle contains the Turkish manifesto, which was published at length in the Paris Moniteur of the 21st February. It appears from the various foreign journals, that though it leaves nothing for negotiation, it is not considered a declaration of war, but only a bold appeal to the Ottomans to prepare for war. "It distinctly avows, that from the first overture made by the allies to the Porte, to consent to the independence of Greece, the Porte was determined to resist such demand, and to risk the last extremity."

Russia is the great object of the Turkish indignation. It is declared to have been her constant system to make war on the slightest pretexts, while England and France are spoken of as her dupes. The battle of Navarino, was viewed by the Turks as an infraction of treaties, and a virtual declaration of war. It is spoken of in the following terms:

"The Ottoman and Egyptian squadrons, having entered the port of Navarino, were there tranquilly waiting the orders of the Sublime Porte, when the English, Russian and French fleets, which unexpectedly entered the same port, as friends, began to fire, all three together; and all the world knows the catastrophe which resulted therefrom to the Imperial squadron. The three Powers having thus openly broken the treaties and declared war, &c."

The *Sun* says, a cabinet council met last night, at half past ten, and sat in deliberation till near one. Mr. Peel was twice sent for to the House of Commons to attend it. The Morning Chronicle states that there was a good deal of conjecture as to the object of the cabinet council to which Mr. Peel was called, at a late hour. We have heard rumours on the subject to which we dare not advert."

Despatches had been received from the British Charge d'Affairs at St. Petersburgh, immediately after which a cabinet council has been convened. "There are rumours of a desire expressed by the Russian government, to advance with an army into Turkey, that the French government is willing to consent to this step, but the English government opposes it.

It was reported in London, February 26, that Prince Polignac, the French Ambassador, had arrived in that city, and that the order for his departure from Paris was so sudden, that instead of attending an evening party, as he was preparing to do, he ordered his carriage, and proceeded at ten o'clock for London.

Among the speculations in London respecting the course that ministers would be likely to adopt in the affairs of Turkey, the favourite one was, that they neither would, nor could, in the spirit of the Greek treaty, countenance the advance of the Russian troops, and that they would take a firm position respecting it, relying on the want of means for Russia to act unsupported.

MAMMOTH OX COLUMBUS,

Weighing nearly 4000 *lbs.*

PROBABLY THE LARGEST IN THE WORLD,

Will be exhibited, for a short time, in Second street, near the Marsh market.

This animal was bred in the town of Greenland, state of New Hampshire, and was seven years old last June. He has been exhibited in all the principal cities from Maine to Virginia, and has been viewed by more than 60,000 persons; he is as much admired for his *symmetry of form and beautiful colour*, as for his extraordinary size. It is the opinion of good judges, that he may be made to weigh one thousand pounds more than he now does.

His immense dimensions are given in the following measurement:

	feet.	*inches.*
Length from the nose to the rump,	11	00
Height, ...	5	10
Girth around the body, ...	11	6
Shoulder to brisket, ...	4	6
Horns, from tip to tip, ...	3	3

Many English gentlemen who have seen the celebrated Durham ox, give Columbus the decided preference, and all pronounce him the most noble and extraordinary animal ever exhibited.

There is also the extraordinary

SMALL COW,

That measures only two feet ten inches in height, and four feet two inches in length. She is nine years old and well proportioned.

The exhibition will be kept open from eight o'clock in the morning till eight at night.

N. B. The place of exhibition is convenient and well calculated to accommodate visitors. Ladies and children can view those wonderful productions of nature with perfect safety.

Admittance 12 cents—Children half price.

FRENCH BEEF.

The fat ox which figured in the Carnival procession lately in Paris, weighed two thousand seven hundred pounds, [nett weight—supposed,] and was five feet nine inches in height. It was sent, along with eleven others of nearly the same size and weight, from Caen, in Normandy.

IMPLEMENTS OF HUSBANDRY.

The subscriber would inform his friends and the public generally, that he will be supplied this season with Little's celebrated Grain Cradles, from Pennsylvania, which will be warranted equal to any in use. Also, on hand, Corn and Tobacco Cultivators, of superior quality; Davis' patent Ploughs; Swingletrees; Cornshellers; Washing Machines; Caststeel Axes; Picks; Grubbing Hoes; Mattocks; Hay Knives; Spades and Shovels; Grass Scythes. Likewise, as usual, his Cylindrical Straw Cutters, and Brown's Vertical Wool Spinners—all of which will be sold at reasonable prices for cash.

All communications by mail (*post paid,*) will be promptly attended to

JONATHAN S. EASTMAN,
No. 36 *Pratt-st., Baltimore.*

P. S. Agents for the subscriber, where gentlemen can leave their orders.

Messrs. Jona. Alden, Philadelphia.
Barr, Auchincloss & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C. & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savannah, Geo.

FARMS TO BE LEASED, ON NEW TERMS.

The subscriber offers to lease, for the next ensuing year, or many years, several valuable Farms, of various sizes, situated on the Transquakin river, about eight miles from Cambridge.

He takes this early occasion to make known his intentions, that tenants may have full time to adopt, upon deliberate reflection and digestion, his scheme of terms, which is unusual, yet plain, and of cheap and easy practice, and unquestionably secure and productive; rendering the tenant more independent, more wealthy, and more permanent in his establishment; and necessarily offering the strongest incentives to personal energy and enterprise.

The subscriber has room here, only to say, that the outline of his scheme is, to *diversify* the *crops largely;* to *cultivate much* in a *little;* to *take shares;* and if required, to supply a part of the expenses; and to make a lease obligatory upon himself for a long term, yet to be dissolved by the tenant at the end of either year of the term, upon his (the tenant) giving a certain specified previous notice to the subscriber, of his intention to quit.

Tenants of good repute may establish themselves for life, and their posterity also, by accepting, without delay, this liberal offer.

JOSEPH E. MUSE.

N. B. The cotton crop, though anxiously desired, will not be *insisted* on, as one of the rotation. J. E. M.

March 29, 1828.

BRILLIANT.

The beautiful and high-bred horse Brilliant, will stand this season at the subscriber's stable, near Fairfax Court-house, Virginia, and let to mares at the low price of five dollars in the season, seven out, and ten to insure a mare. Season to commence the 1st April, and end the 1st July.

Pedigree:—Brilliant was got by Timoleon, who was got by Mr. John Tayloe's fine running horse Grey Diomed, who was got by the old imported horse Medley. Medley by Gimcrack. Sire of Medley was got by Cripple, his dam a Partner mare; got by Griswood's Partner, Bloody Buttocks, Greyhound, Brocklesby's Betty, [see general stud-book, page 288,] and Cripple by Lord Godolphin's Arabian. Timoleon's dam is the celebrated mare Bonny Lass, now in the possession of Mr. Wm. McCormick, of Frederick county, which may be ranked among the first blood on the continent, as there are none of her colts but that run. For instance, see a half sister of Timoleon win the first day's Jockey Club at Charlestown, also at Shepherdstown, the old mare's blood may be seen in the certificate (in the possession of the subscriber,) signed by Benjamin Lowndes, Esq., Bladensburg. Brilliant's dam, Caroline, was got by Marshall; he was gotten by the imported horse Spread Eagle; his dam Virginia Nell, by the imported horse High Flyer; her dam by Mr. Baylor's Gallant; her grandam by the imported horse Brunswick; her great grandam by the imported horse Ranter; her g. g. grandam by the imported horse Dabster; her g. g. g. grandam by Col. Prestley Thornton's imported Roan. Gallant was gotten by the imported horse Fearnought; his dam, Stately, by the imported horse Sober John, out of an imported mare called the Strawberry. GEORGE CHICHESTER.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.25—superfine Howard-st. 4.50 *a* 4.62½; city mills, 4.50; Susquehanna, 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .80 *a* .86—best white wheat, .95 *a* 1.00—ordiny. to good, .75 *a* .80—Corn, .37 *a* .39—Rye, 42 *a* .44—Oats, 21 *a* .23—Beans, .80 *a* 1.00—Peas, .55 *a* .60—Clover seed, 3.75 *a* 4.00—Timothy, 2.50 *a* 2.75—Barley, .60 *a* .62—Flaxseed, .75 *a* .80—Cotton, Virginia, .9 *a* .9½—Louisiana, .10 *a* .13—Alabama, .9 *a* .12—Mississippi, .10 *a* .13—N. Carolina, .9 *a* .10½—Georgia, .9 *a* .10½—Whiskey, in hhds. 1st proof, .22—in barrels, .24—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $280—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 50 *a* 7.00; do. do. trimmed, 7.50—Herrings, No. 1, bbl. 3.25 *a* 3.50; No. 2, 2.75—Mackerel, No. 1, 5.62½, No. 2, 5.37½; No. 3, 4.50—Bacon, hams, Balt. cured, .9, do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

(From the Selma Courier.)

SUGAR.

Copy of a letter addressed to Robert R. Harwell, Esq. of Jackson, Alabama.

Dear Sir,—I returned last night from Attakapas, after an absence since early in May last, west of the Mississippi, for Arkansas and Louisiana. Having passed some time at the house of a friend and relative in Attakapas, I had the best opportunity of seeing the process of manufacturing sugar, and the cultivation of the cane, and was much delighted with it. Those who are engaged in this business are thriving, and the value of their lands constantly improving. In confirmation of this, there have been in Attakapas three hundred additional sugar works erected. From those circumstances, I determined to advise my friends and acquaintances, and endeavour to urge them to the culture of the sugar cane, and that without delay. Had I not heard you were from home, I should have called on you to-day. As you have fine lands for the business, I am sure you will profit by information on the subject. It is only necessary to have correct information, to induce every one living south of latitude 33, who have good lands, or who can get them, to make sugar. The business is healthy, the labour far less than in the cotton crop, and can be as easily cultivated as corn after it is planted. The crop is finished early in June, like corn, and you have leisure during the heat of summer, and till October or November, when they begin to cut, grind and boil. This last takes four weeks or more, and is viewed rather as a frolic desired by the hands than dreaded. There is a great error in the public opinion, where they are unacquainted, that it takes a large capital and a great number of hands to make sugar. A man last season in Lafourche, with the assistance of two little sons, ten and eleven years of age, and a negro girl about the same age, made sugar which he sold for $2250, clear of all expenses; but, as is customary, there are some help to cut, grind and boil, (which has to be carried on all at once, to keep the juice from souring,) and the molasses more than paid expenses. The same man made the rollers, to grind, of *live oak*, and his whole expense, besides the kettles, did not exceed thirty dollars.

Two brothers, this season, in Attakapas, with their own labour, (being opposed to slave labour,) made 20 acres of creole cane, which will make 36 or 40 hogsheads of sugar. They were entirely done grinding when I left there, and I understand they will overpay for help to harvest, with the molasses. Their profit will amount at least to $2500. But these are particular cases: one hand can and does, in ordinary cases, cultivate four acres with ease, besides corn and other necessaries. One acre of good creole cane will make two hogsheads of sugar of 1000 lbs. each, which at 7 cents per lb. is worth $140. Four acres, 8000 lbs.—560 dollars. From the best information I could get, 500 dollars to the hand is the common product. As to the success of the cane in this part, it is beyond doubt. I saw cane of three kinds, viz: the Ribland, the Creole, and the Owhyhee, well matured in Sept., at Judge Bry's, in Onachita, in latitude 32° 30. It has matured, wherever tried, south of latitude 33°, from South Carolina to Louisiana. Since at this place I have seen a fair sample of the ribband cane on the farm of Samuel B. Shields, Esq. on the bank of the Tombeckbe, within fifty paces of the federal road from Washington to New Orleans. The seed or stalk, from which this cane grew, Mr. Shields tells me, were sent to him by his now deceased brother, Thomas Shields, from New Orleans. There were three flour barrels of the slips of the seed cane. It was planted on the 15th of March last—from misinformation too shallow and too thick, or close. The ground was cleared in 1812, and never manured; was broken up and planted in drills, cane laid laterally; after planting it was not ploughed, but chopped over twice. The cane was sufficiently matured to cut early in November. Mr. Shields tells me he has counted and cut as many as fourteen stalks from one single eye, or joint, and from ten to eighteen joints on each *stalk*. From the product of this little spot, he has planted at least two acres. From the uncommonly warm weather, it is now coming up; that is, sprouts from the stubble, or *rattoon*, as the sugar planters call it. I have seen a few stalks of this cane, that are within a few paces from whence I write, which were left standing to see the effect which frost might have on it, *and to give to friends.* I have examined it closely, and believe it equal to any ribband cane I ever saw in Louisiana.

The ribband cane is sold this season at Attakapas, for seed, as it stands in the field, at 200 dolls. per acre. The ribband cane is greatly preferred, every where, to the creole, or any other kind. It is larger, and makes from three to four hogsheads per acre, grows farther north, and matures at least one month earlier. It is smooth, without those annoying prickles on the leaves of the creole cane, and is not injured so much as the latter, by being blown down by storms, as it will ripen after it has fallen on the ground. All are trying to get the ribband cane for seed. As I believe this to be a most important subject, and the culture to be the most likely to promote the interest and prosperity of the southern part of the United States, and is so little understood, I give such details of the culture and manufacture of sugar, as my opportunity and time will permit.

The cane should be planted in a rich, dry soil, such as where the common cane grows. If the soil is wet, or subject to inundation, it should be leveed and ditched, to keep it dry. If the land has been cultivated in corn or cotton a year or two, the better; though worn out land is not good. It is ploughed deep in the fall or winter, and prepared as for cotton—drills three or four feet apart. Some plant the cane as they cut it in the fall, and cover it deep, (six or eight inches,) and remove the earth in the spring, or in February, before it comes up; most persons prefer February. The seed cane is cut before frost, as the eyes are easily injured by frost. They are put up in a kind of stack, with the buts of the stalks to the ground, and the tops leaning together till it spreads twenty or thirty feet wide, and the outsides are covered with earth as far as the stalks are naked of leaves. When it is planted, the stalks are laid singly along the furrow, and capped as far as the leaves extend beyond the joint. The stalks are about three feet long, of which 70 will plant a row across an acre, and 70 drills to the acre is 4900 stalks to the acre. When seed is scarce, and you wish to raise seed only, it is planted further apart, (five or six feet.) Sometimes they cut the stalks in two between each joint, and plant the eyes or joints twelve or eighteen inches apart. One acre will plant five or more.

The cane is a hardier plant than corn or cotton, and is not injured by spring frosts, as it does not begin to joint till May; as soon as it gets up high enough, it must be scraped and weeded like cotton with the hoe. It is not thinned. It soon gets large enough, when it shades the ground and defies the weeds, and becomes the most luxuriant crop before fall that I ever beheld. The rows, three feet apart, become so thick as to be difficult to get through. In June it is laid by, or ceased working, as corn, and you are at leisure during the summer heat, till October. If you could get seed to plant one or more acres this winter from the Mississippi, I would advise you to do so without fail; you will only regret it if you do not. Suppose you plant one acre the ensuing season; next you will plant five, and the year after twenty-five, the work of six hands; but if you have twelve hands, which is nearer your force, I would advise you to get seed to plant two acres this season, and in 1830 you will have fifty acres of cane, and can in that year begin your works, and make sugar—100 or 150 hogsheads worth 7 cents per lb.—$7000 to $10,000; and this would be the easiest work you ever did. You can go on with cotton or other business till you raise a stock of cane, with little hindrance on that account. I will now mention something of the works and process of manufacturing, and conclude this long letter.

It is easy to cultivate more cane in Attakapas, than they can manufacture. When you have as much cane as your force can save, it is time to begin the works. A mill to grind, consisting of three cast iron cylinders, fifteen inches diameter, and three feet long, the iron one inch thick; these are fitted on timber, and set one end in a trough touching each other: The middle roller extends high enough to fasten to a shaft like a cotton screw, and turns the other two rollers with cogs. Two or more mules will turn it, and it is fed with six or eight stalks at once, which are pressed flat, joints and all, and the juice runs in a constant stream to a reservoir convenient to the kettles. Four kettles are generally used, of a size to suit the business, as it is found that the same furnace will heat four as well as one. The kettles are of cast iron, shaped like a bowl or basin, generally five or six feet across the top.

The set is one much less than the other; they are placed over a brick furnace, the largest first, into which the juice is put to skim; the least, or last, called the grand or grainer. They are twice filled and emptied into the grand.

The first, or largest, is called the battery, or heater; here they put about half a pint of slacked lime, each time it is filled up with juice. This is all the process of graining or *liming it;* when they perceive the syrup in the ungrainer is boiled enough, by raising it on the bucket, two persons dip it hastily out with long handled buckets, and immediately fill it by emptying the other kettles, to keep it from burning. Each kettle from the first is placed a little higher than the other, to skim off the froth or sap, into the first with a long wooden sword, and wipe it with a brush. The whiteness of the sugar depends on skimming and keeping it from burning as much as the grain or liming. When the syrup is dipped out of the grainer, it is conveyed into an adjoining room into vats or troughs, where it cools and becomes hard. It is then spaded up and put into hogsheads, setting one end over a vat, into which the molasses drains out of the sugar; some stalks of cane are put into the hogshead, to lead the molasses. They have greatly improved lately in Attakapas in graining sugar; they have the best specimens this season ever made. I will mention that it is the practice to employ persons acquainted with the business, to superintend the erection of the work, and to manage it the first season. There are plenty of persons anxious for employment that way, on moderate terms.

Some send a hand to attend to the kettles, for a season, to learn. All depends upon getting one acquainted with graining and managing.

You will excuse the hasty and crude manner in which this important matter is stated.

When I see you and have leisure, I shall take a pleasure to explain more intelligibly. If all those who could make sugar, would commence and quit the cotton business, those who could not make sugar would get a better price for their cotton. Every thing—health, interest, patriotism, and sound policy are in favour of it. There is no danger of glutting the sugar market, for our country has too little cane land, to supply the growing demand, which increases faster than the population. The tariff of three cents per pound is ample protection.

(Signed,) JAMES McCOY.

THE SUGAR-CANE.

Now, that it has been proved, beyond doubt, by *actual experiment*, that the sugar-cane can be successfully cultivated on Red river lands; the tide of public opinion is evidently setting that way. Some of our most wealthy and enterprizing planters are commencing on a more extensive scale than heretofore. This augurs well for the prosperity of the country. We hope, ere long, to see many others following the example, and we heartily wish them that success which we believe will crown their exertions. [*Alex. (Lou.) Gaz*

TOBACCO.

We have before us a valuable exhibit concerning Maryland and Ohio tobacco, shewing the exports of 1827, crop of 1826—sales in Europe in 1827, and the whole stock on hand, 1st of January, 1828. The following brief abstract takes in all that can be generally interesting:

	To Amsterdam.	Rotterdam.	Bremen
From Baltimore, hhds.	4602	6967	8157
District of Columbia, hhds.	6096	1527	3655

Also—from Baltimore, 508 hhds. to Hamburg; 138 to Stockholm, 259 to London; and 120 to Bordeaux: And from the District of Columbia, 1868 to Cowes and a market; 854 to Havre. Total from Baltimore, 20,751 hhds.—from the District of Columbia, 14,000—together, 34,751, exclusive of 870 from Baltimore, and 150 from the District, sent to other ports, and thence forwarded to Europe.

Whole export in 1827, . . .	*hhds* 35771

There remained on hand, on the 1st of January, 1828—

In the warehouses at Baltimore, .	*hhds.* 6761
on the Potomac, .	2300
Patuxent, &c. . .	700
	9761
Export as above, ...	35771
	45532
There was on hand, 1st of Jan. 1827,	14011

Whole crop of Maryland and Ohio tobacco of 1826, 31,521 hhds.—to wit:—24,021 Maryland, and 7500 Ohio.

The stock on hand is given as follows—

1st Jan. 1828, at	Baltimore, &c. . .	*hhds.* 9761
Do.	Amsterdam, . . .	7966
Do.	Rotterdam, ...	5647
Do.	Bremen, and on the way,	5408
Do.	London, . . .	600
Do.	Hamburg, ...	400
Do.	All other places, . .	900
Add estimated crops of 1827, . .		38000
Whole amount on hand, . . .		68682

The whole quantity sold in Europe, in 1827, was as follows:

In Amsterdam, ...	*hhds.* 10507
Rotterdam, ...	8426
Bremen, ...	9700
All other, ...	2500
	hhds. 31133

Exports from the District of Columbia.

The following statement of the export of the single article of *Tobacco*, from the District of Columbia, during the last year, will be interesting to many of our readers. The tobacco was all, or nearly all, of the growth of Maryland and Ohio. If this District is now an exporting point for Ohio, with the immense intervening land carriage, what would it not be for the whole western country, with the facility of a canal from the Ohio to the Potomac?

Cleared in 1827.	*Vessels' names.*	*Amsterdam*	*Rotterdam*	*Bremen.*	*Cowes and a market.*	*Havre.*
Febr'y 26	Charles,	—	—	—	—	296
March 18	Helvetius,	493				
" 1[illegible]	Shenandoah,	—	—	150		
" 30	Virginia,	818				
April 5	Diligence,	—	—	—	486	
" 18	Superb,	—	688			
May 1	Rousseau,	—	—	434		
June 2	Gov. Brooks,	—	—	—	428	
" 18	Laura,	—	—	290		
" 21	Syren,	—	—	—	—	300
" 30	Pioneer,	542				
July 3	Emblem,	—	—	—	260	
" 23	Shenandoah,	—	—	811		
" 25	Beta,	524				
August 17	Eagle,	659				
" 17	Washington,	—	—	—	244	
" 25	Columbia,	649				
" 31	Envoy,	—	—	427		
Sept. 5	Wm. Baker,	305				
" 6	Kremlin,	—	431			
" 19	Florida,	376				
" 29	Eagle,	—	—	485		
October 5	Gold Hunter,	—	—	--	450	
" 5	Robt. Patton,	—	—	--	—	258
" 9	Volant,	—	—	350		
" 9	Virginia,	793				
" 15	Massasoit,	450				
" 15	William,	—	—	450		
" 17	St Peter,	—	408			
" 17	Diligence,	487				
" 29	Shenandoah,	—	—	208		
		6096	152.	.655	1868	854

RECAPITULATION.

To Amsterdam, ...	*hhds.* 6096
Rotterdam, ...	1527
Bremen, ...	3655
Cowes and a market, .	1868
Havre, ...	854
Europe indirect, . .	150
	hhds. 14.150

(From the Georgia Journal.)

AGRICULTURAL DISTRESS.

Eatonton, Tuesday Evening, Feb. 5, 1828.

Pursuant to previous notice, by A Citizen Farmer, a large and respectable number of citizens convened at the court house, for the purpose of considering the embarrassments which we, as a community labour under, and of devising a mode of relief, calculated to alleviate the pressure of the times—

On motion, *William Flournoy*, Esq was called to the chair, and *Mark A Cooper* requested to act as secretary, who took their seats accordingly.

After an interchange of ideas, it was moved, that the chairman appoint a committee of five, for the purpose of drafting such resolutions as they may think adapted to the condition of our country, and Messrs. *William Turner, Josiah Flournoy, Irby Hudson, Joel Branham* and *Thomas Hoxey*, were appointed as a committee

The meeting adjourned, to meet on this day two weeks.

Tuesday, 19th February, 1828.

The citizens from the various parts of the county convened at the court house, William Flournoy, Esq. being absent, Dr *John Kennon* was called to the chair, when Mr. *Turner*, chairman of the committee appointed for the purpose of drafting such resolutions as might be thought adapted to the condition of our country, offered the following report.

On motion of Josiah Flournoy, Esq the report and resolution were adopted.

On motion, *Resolved*, That the editors of the Journal and Recorder be requested to publish the report and resolution offered by the committee and adopted by the meeting

JOHN KENNON, *Chairman.*

Mark A Cooper, *Secretary.*

In relation to the following report, it may be proper to remark, that, being composed from the drafts of several persons, rather hastily thrown together, it is rather more prolix than it otherwise would have been. From the same cause, there may not be quite as much uniformity of language, on some minor topics, even of sentiment or matter, as might otherwise have appeared. Yet it is hoped that, upon the whole, the document will be productive of some good.

REPORT.

The committee appointed to enquire into the causes of the existing embarrassments in the community, and to suggest the best method of relief, report,

That they have directed their anxious attention to the discharge of the duty assigned them; and now submit the following considerations

The embarrassments complained of, are mainly attributable to the following causes:—the reduced prices of produce; the exhaustion of our lands; bad crop years; bad management; extravagance; and purchasing on credit

It is needless to dwell on a matter so well understood as the effect produced by an unexpected and considerable reduction in the prices of our staple commodities. Nor is it necessary to descant largely upon what is obvious to the most superficial observer, that our fields are deprived of much of their original fertility. The unfavourable seasons are painfully remembered, even by our most judicious farmers. And, although the imputation of bad management may be unpleasant, yet it is believed to be merited, even by some who have had the reputation of being good managers. This bad management has consisted either in having no system, or having a wrong system. Many have employed others to attend to their business, who ought not to have employed any one. Others, who were obliged to employ overseers and other agents, have not bestowed as much personal attention on their own affairs, as they might and ought to have done. Many have planted too much cotton, and too little corn. The consequence has been, that they have incurred the disgrace as well as the expense, of buying, instead of raising, horses, and hogs, and even corn. Another fruitful source of embarrassment, is extravagance; our expenditures have been entirely disproportioned to our income. We have bought clothes for ourselves and families, instead of making them. We have bought fine horses, and carriages, and saddles, when cheaper would have done. We have maintained our children in idleness and style, when we ought to have reared them in plainness and industry.

But it is easy to perceive that the causes enumerated, however powerful in themselves, could never have produced the existing state of things, if it had not been for the existence, or, at least, the abuse of credit. This is indeed the Pandora's box, from which most of the evils complained of have emanated.

Connected with the system or with the abuse of credit, is another evil of considerable magnitude; that of securityship. Many persons who would be able otherwise to bear up, notwithstanding the pressure of the times, are ruined by the laudable, yet unavailing attempt to sustain their friends by suretyship and endorsements.

The committee might easily add to this catalogue other causes for the embarrassments of the present time; but it is useless. Some of them are so connected with the formation of our community, and others, with our moral constitutions, as to preclude even the hope of immediate remedy. The committee will, therefore, proceed to suggest such remedies for the present distress, as they believe to be clearly practicable. And here they must indulge their regrets, that the fallen fortunes of many cannot be restored by any course which can be suggested. To such it only remains, to pay their debts as far as their effects will extend; ascertain the true ground on which they stand; and, no longer deceiving others or themselves, "begin anew their journey and their lives." Pursuing this course, it would still be practicable for a considerable number of them to acquire a competency, or even a fortune, for their families, while there is little or no hope from a contrary course.

Presupposing the necessary industry, without which it is impossible to succeed, the remedies which would be more immediately beneficial to the community at large, are:—To dismiss extravagance; to make as much and buy as little, as possible; to avoid as much as possible the purchase of articles on credit; to be economical in every respect.

The propriety of these suggestions is so obvious as to require but little elucidation. In the idea of making as much and buying as little as possible, is included, not only the production of commodities for market, but of an ample supply of provisions, clothing, work animals, &c. for domestic use. The advantage of purchasing necessaries with cash, is too apparent to need illustration. To give full effect to these recommendations, it is necessary to keep accounts of receipts and expenditures, so as to be able at any time to know your standing; (an ignorance of which often causes a man to incur ruinous expenditures or engagements;) and to be systematic in all things, having a time and place for every thing and every operation; and every thing in its time and place.

It is recommended to every man who has the charge of a family, or estate, to ascertain the full amount of all the demands against him accurately, and set this sum down; and then estimate as correctly, all the means he now has in hand, to meet these demands.

If he finds that his means are competent, to the ends desired, he has nothing to do but to mind the same things, and to walk by the same rule—setting as good an example as he possibly can, of industry

But if, upon examination of his affairs, he finds he has only in part the means to pay his debts, let him put three years business, as nearly as he can, together; take the average profit of one year, and see if that will meet all the claims upon him, after he has dispensed with all superfluities. If this will answer his purposes fully, let him go in hope that he shall obtain the wished for end.

If otherwise, it is perceived that two or more years of prosperity must attend him before he can be delivered from embarrassment, let him sell that portion of his property which is least profitable and most saleable, until he has reduced his debts to the compass of one years profit.

Without adverting to what may be done by the introduction of new articles of culture on our farms, it may now be emphatically said, that cotton is our only agricultural product for exterior trade. Of cotton, we annually raise about eight thousand bales; which may be estimated to be worth, clear of freight and other expenses incident to its sale, about one hundred and eighty thousand dollars. This sum is our only reliance to pay our current expenses of every kind, and our debts; and which we have no hope can be materially enlarged.

Our annual expenditures we estimate to be:

In store accounts, average, . .	$85,000
Pork brought from other states .	15,000
Horses and mules, . . .	8,000
Pleasure carriages, household furniture, watches, doctors' bills, blacksmith accounts, ...	8,000
Salt, iron, sugar, coffee, cotton bagging, and other articles usually bought at places where we sell our cotton, and not included in the estimate of store accounts, . .	8,000
Interest on existing foreign debts, computed at legal per cent, and without taking into view the many instances in which more than lawful interest is given, . . .	25,000
Making our annual expenses amount to	$149,000

This calculation, if erroneous, we believe, shows our annual expenses to be less than they actually are; but taking it for correct it leaves an excess in the avails of our yearly labours, after paying annual expenses, of only thirty-one thousand dollars, applicable to the payment of present debts; an amount by far too small to extinguish them, or so to reduce them as to change their present burthensome and destructive character, within any time that we can reasonably hope that the holders of them will forbear to press and compel their payment But a material fact in relation to this balance should not escape observation; many of our citizens, from better management, accident, or other causes, are in prosperous circumstances; and it is into their hands that a considerable part of the money immediately, or ultimately, goes; and although the whole amount of the balance, if exclusively applied to the relief of those whose circumstances are most needing it, would be together insufficient, yet it is apparent that they get much less than the amount of that balance. And what is the consequence?

Some by ruinous sacrifices, in the shape of additional interest, or the sale, for less than their value, of the demands which they hold upon others, put off, for a little time, the day of final payment.

The property of others, we will not say more *unfortunate*, is taken to satisfy debts, enlarged by costs and expenses. If the property when under the sheriff's hammer, could be sold for its fair value, the result would not be lamentable; but this is not, and cannot be the case; because the amount of property which the debts and embarrassments of the community compel them to throw into market, at a fair price, greatly exceeds the annual proceeds of cotton, deducting annual expenses, and it is to these circumstances, prices of property must and will be graduated, and not as in ordinary cases, to its intrinsic worth. No person, however accurate may be his opinion of the value of a thing sold, and how desirous soever he may be to possess it, can buy without he can pay the money for it; this, but few can do; and all the consequences of a glutted market ensue; but little competition; much to be sold; and but little to buy with. The end must be a sacrifice of the property sold, and not unfrequently, a hopeless insolvency of valuable members of the community; poverty, privation and distress among their families, and often in cases where the moral worth of the sufferer claims our deepest sympathy and commisseration.

It is not among the least evils of the times that their tendency is strong, is irresistible, to make the rich, richer; the poor, poorer. Take an instance where property is sold at a sacrifice. Precisely the difference between the actual sale and value of the thing sold, is the gain of the purchaser, at the expense of the unfortunate owner, and sometimes at the expense of the creditors also; as where an individual whose property, at its worth, would cover his debts, does not sell for its value; there is a deficiency, which his creditors lose, gained most usually by him who already has enough, and lost to him to whom it is necessary for the actual comfort and maintenance of his family, or, in case of creditors, necessary to the payment of their own debts.

It is from the same cause that purchasers of notes advance with such rapid strides to wealth among us. It would be wasting time to attempt to prove that the use of money is not worth as much as is asked and obtained by them for it; and it argues a kind of infatuation among us, which we do not believe has any existence, to suppose that we would voluntarily, and without being under great necessity, moral, or otherwise, give so much above its real value for it. In the pressure and necessities of our circumstances, an individual who wields his capital in that business, has an advantage over the community equal to the difference between the true value of the use of money, and the amount obtained: a difference, we believe, of not less than from 15 to 20 per centum, *at compound interest*, and which, in its progress, is entirely competent to the heaping up of great riches on the one hand, and wither and consume on the other.

Such are some of the deleterious consequences of our pecuniary difficulties. Rapid accumulations of additional wealth by those who commonly have enough; and as rapid a divestment of the little property possessed by others, every way as deserving

It may be well here to say a word relating to the mischievous character of a large portion of the debts we now owe. They are virtually foreign debts, and so many drains to carry from us entirely much of the money which would otherwise remain in circulation among us. A man owes a debt to his neighbour; that neighbour or some other person, into whose hands the money soon goes, owes one of our merchants, to whom he pays it. The merchant owes for his goods, which he must pay for; and in this way it very often happens, that money has hardly reached us from the sale of our cotton, before it commences its return back. But if we owed no foreign debts, the money we might pay in discharge of such as we did owe, would ordinarily still remain with us, and increase the only fund which can be relied upon to make property sell for its worth; that is, the amount in the hands of our citizens, seeking its investment in property. It is, therefore, the unnecessary and improper amount of our purchases from abroad, directly or indirectly, that makes the "balance of trade" against us; first, draining us of our money, as being most portable; and, if continued, eventually taking from us much of our other property that can be carried away with the most facility.

To trace, in all their ramifications, the various pecuniary and moral evils which grow out of such a state of things, would far transcend the limits within which we wish to confine our remarks. We shall content ourselves with stating, most confidently, that we have an effectual remedy in our hands; that by pursuing a proper course of retrenchment and self denial, the community have it completely in their power to relieve themselves from their pecuniary difficulties.

We would make a single remark as to an expectation entertained by some, (upon which much reliance is placed, which we fear will be found delusive,) in relation to an increase in the price of cotton. The price of this article will, we presume, be always subject to occasional fluctuation; short crops and other circumstances, may sometimes cause an advance. But our opinions, founded upon our best judgments is, that the average price will continue low, and ultimately reach a point less than any to which it has gone for many years. Sales made in the early part of next season may, perhaps, *seem* contradictory to this; if, however, it should so happen, we fear that time will ultimately prove the correctness of the opinion here advanced. We turn, therefore, to what we believe to be our *sole dependence* for relief—the curtailment of our expenses.

Our community has already strained every nerve; has put in requisition all its means, to raise all the cotton it can raise, and cannot hope materially to increase its quantity from its present average amount. We attempt to raise nothing else for foreign trade, and all we have done is insufficient to meet our exigencies. The fault is not in our soil; a great deal worse is tilled to much advantage. Cotton is a far more valuable agricultural product than the climate permits to be raised in many other countries, which are nevertheless prosperous. The fault is in ourselves. Our wasteful and expensive habits, formed in times of unexampled prosperity, are retained. But those times are gone. We have not had the wisdom to change with the times; and, until we do so, our case is hopeless. We now make about one hundred and eighty thousand dollars a year from our cotton. We must, if we would save ourselves, reduce our expenses so, that a sufficiency of that sum shall remain, to be annually applied to the payment of old debts, to extinguish them in a reasonable time. We would earnestly urge to the community, that except this, there is nothing else to depend on. Stern necessity is at work among us, and sooner or later, willing or unwilling, to that we must yield; but how much better would it be, how much misery would it save us, if, in the language of the best of books, it could be said of each individual—"The wise man foreseeth the evil, and hideth himself."

If we would hide ourselves from impending evils, let us contract no new debts, except from the most unavoidable necessity, and apply all we can save, to the discharge of old. Let us make every thing which we need, and which we can make, in our own families.

We must raise all the pork needed in our families, and a surplus for the supply of those whose avocations and situations prevent them from doing so. This can easily be done by next season, and would save us annually fifteen or twenty thousand dollars. We must raise our own horses and mules. The effect of this would not be felt under three or four years; after that time, ten or fifteen thousand dollars could be saved annually in this item.

None doubts our capacity to do all these things, and to do them easily. We should, in doing so, not be able to raise as much cotton as we now do; but the gain by us in the exchange would be great. We do not believe that we should fall short ten thousand dollars in the amount of cotton crops annually, to accomplish every thing recommended; and by rigidly adhering to the course recommended, instead of a nett gain each year of thirty-one thousand dollars, we do not doubt it would be swelled to more than a hundred thousand dollars; and that in a short time we should generally be as prosperous and as happy, as ease in our money affairs could make us.

We forbear enlarging upon the many happy effects, pecuniary, moral and political, which would accompany this steady and unwavering prosecution of our interests. We have endeavoured honestly to point out the evils which burthen us, their cause and the remedy? And much pleasure would it give us if our humble efforts should be productive of any good, however small.

In consideration of the premises, the committee recommend the adoption of the following resolution:

Resolved, That the relief of the community from existing embarrassments, can only be effected by a due consideration of the causes enumerated, and a determined adoption of the remedies suggested in the foregoing report.

(From the American Daily Advertiser.)

MADDER.

Mr. Poulson, *Belmont, March* 27, 1828.

Please to publish the letter I herewith transmit for public benefit. The writer merits and will receive the thanks of the society, for his patriotic endeavour to introduce into our country, a most valuable *dye-stuff*. It will be too late in the season to wait for a regular meeting of the society, in order to obtain their directions for the distribution of the roots. I have, therefore, requested the secretary, Mr. William S. Warder, by and with the advice of the vice presidents and curators, to cause the roots to be distributed to and among such applicants as in their judgment, will do justice in their cultivation.

I have long been convinced, that an entire change in the farming of those who live near, or within an extensive circuit around our city, will conduce to their essential and indispensable advantage, and to the prosperity of the city, which will become one of the first manufacturing cities in the United States, when the inland supplies of coal, iron and other native products arrive at full perfection. Dye stuffs will then be most indispensably required.

It therefore behoves our farmers and gardeners, immediately to begin the cultivation of all such articles as will be in extensive demand; none thereof will be more important than the madder. It requires time (three years,) to perfect its qualities; and it delights in deep, light or alluvial soils, either artificially so made, or naturally deep, and somewhat moist. Such are our meadows and vallies, every where to be found.

Although the time required for its full perfection, may seem forbidding, yet every thing must have a spirited and zealous beginning. At the end of the first year, the offsets, from the original root, will furnish ample supplies for extended cultivation, and thus large plantations may be made. Mean time the leaves are eagerly devoured by cattle, where cut and delivered to them twice per day, or according to their forwardness of growth. Leaving the heart-shoots uncut, will conduce to the health and increase of the root. If required, ample directions for its culture will be published. Yours, truly,

RICHARD PETERS,

President Philadelphia Society for Promoting Agriculture.

Providence, March 5, 1828.

To the President of the
Pennsylvania Agricultural Society:

Sir,—You will receive herewith, a hamper of madder-roots of the best quality, raised in Holland. They were purchased by me in Amsterdam, with a view of propagating them in this country, where they will thrive as well as in Europe, from whence our manufacturers derive, at present, their supply of this valuable dye-stuff. The cultivation of madder has not, to my knowledge, been attempted in the United States. Feeling assured, that by a little attention to the culture of this plant, our country may be rendered independent of foreign nations for a supply of it, should it not eventually even prove a profitable staple article of export. I am induced to forward this small parcel to you for an experiment, with the conviction that under the auspices of your society, every attention will be paid to the subject, which its importance seems to demand.

I am, very respectfully,
Your obedient servant,
ZACHARIAH ALLEN.

Rustic Rewards.—The Lincolnshire Agricultural Society has given a prize of ten guineas to one man, for having had *seventeen children*, (ten living,) and been forty years in the service of one master; and another of five guineas, for *twenty-five children*, (ten living,) and a service of forty-one years.

[*Chester* (*Eng.*) *Chronicle*.

HORTICULTURE.

INFLUENCE OF TREES UPON SMALLER PLANTS.

Mr. Skinner, *West-Chester, Penn. April* 2, 1828.

Sir,—It is well known to agricultural observers, that certain trees exert a pernicious influence upon many other plants growing in their immediate vicinity; and especially upon some of our cultivated plants, such as Indian corn, oats, wheat, &c. This fact is very remarkable in Indian corn fields, along the margins of wood-lands. It is probable that all trees are more or less injurious to cultivated plants, which are located within the sphere of their influence; but some kinds are much more so than others. Every farmer may have observed that cultivated crops, situated along the borders of wood-lands, exhibit a more sickly appearance, and to a greater extent in the field, opposite some trees, than others. For instance, this effect is generally more remarkable in the vicinity of chestnut, hickory, and tulip poplar trees, than in the neighbourhood of locust trees, maples, persimmons, &c. Our hedgers assert, also, that the red cedar (*Juniperus virginiana*,) and black walnut, (*Juglans nigra*,) are particularly injurious to the Virginia thorn, when permitted to grow near the latter. It has been supposed that this injury was owing to some pernicious secretion, or exhalation from the trees, by which the atmosphere was contaminated immediately around them, and rendered unfit for the healthy growth of more delicate plants. This notion derived some plausibility from, and was probably strengthened by, the fabulous stories so long current, respecting the celebrated *Bohun Upas*, which was said to destroy all vegetation for a great distance around it, by means of a deleterious emanation from that marvellous tree. It was obvious that it was not the mere *shade* of the trees, along our corn fields, which produced the effect in question, because, although shade alone, doubtless has some agency in checking a vigorous and perfect vegetation, the difference is too striking in the vicinity of certain trees, to be ascribed wholly to that circumstance.

An ingenious farmer of this county suggested to me, upwards of twenty years ago, that this unfriendly influence of trees upon crops, was neither owing to shade, nor to any exhalation from the trees; but that the *roots* of the trees robbed the smaller plants of their due share of nutriment. His idea was, that there were certain constituent ingredients in soils which were more particularly adapted to the nourishment of certain plants—that when this nourishment was exhausted, the plants which depended on it necessarily declined, and others, more congenial to the altered, or new condition of the soil, succeeded. This opinion was in some degree corroborated by the fact, of the character of the soil every where determining the character of the thrifty vegetation upon it; and, also, from the success attending a *rotation* of crops—which seemed to be best explained upon some such principle: for it is well ascertained that a continued succession of the same crops does not succeed so well as the alternate husbandry. In pursuance of this theory, my friend argued that certain trees drew from the soil, in an eminent degree, the *same* nourishing ingredients that some of our cultivated crops did; and, being more vigorous, or endowed with greater power to that effect, of course, robbed the latter of their due share of pabulum, and left them weak and dwindling. The truth of his doctrine, he alleged, was confirmed by the nature of the remedy, which had been found most effectual in correcting the evil,—which was, to prevent the roots of the trees from having access to the soil in which the smaller plants grew.

It had been ascertained that a narrow *ditch*, dug along the borders of wood-lands, or around trees, so as to cut off all communication, by means of the roots, between them and the cultivated soil, would pretty effectually correct the injurious influence of the trees, and allow smaller plants to thrive, and flourish, up to the very margin of the ditch. This seemed clearly to show that the evil was produced chiefly through the medium of the *roots;* and not from mere shade, nor from any effluvium, or secreted matter, emanating from the trees themselves.

Without stopping to inquire into the truth of the above, or of any other *theory*, there is no doubt of the *fact*, that a ditch along the edge of wood lands, or between forest trees and cultivated plants, is a very effectual mode of correcting the evil alluded to, and of promoting a thrifty vegetation quite near to such wood lands. The practice has been pursued by several of the most careful and judicious farmers in this vicinity, for a number of years past; and, from its uniform effects, unquestionably deserves to be more generally adopted. I shall close these hasty remarks by giving, in his own words, the observations of one of my neighbours, whose success in agriculture forms the best eulogy of his skill. His experience on this subject is directly to the purpose, and seems to be conclusive.

"Some years ago, I purchased a small farm, surrounded on three sides with the wood-land of my neighbours. In a conversation with an elderly and respectable friend of the vicinage, he observed to me, that I had paid for more land than I would have the benefit of. On my inquiring the reason, he said that my neighbours would receive the benefit from my tilling and manuring, for a considerable distance in my fields, by the roots of the trees penetrating my land. I then determined to try an experiment, that had been suggested some time before, of cutting a ditch near the line to a depth sufficient to cut off all, or most of the horizontal roots, which extended into my fields. I commenced where a hedge of the Virginia thorn had been set near the woods, and was then in a languishing condition. I cut some rods in length, between the hedge and woods, about fifteen inches in depth, which appeared to be sufficient to take off all the roots. Other business interfered for about three weeks: then another portion was cut—and business again prevented its being finished. When I proceeded to cut the third and last part, I observed the thorns, and grass, along the first cutting, had improved in colour, and growth, so as to be equal to those at any distance from the woods. The second part was something like half-way (in improvement,). between the first and third portions. I therefore concluded there could be no doubt, that it was the *roots,* and not the shade of the woods, that did the principal injury to the adjoining cleared land. I have since extended this mode of ditching considerably, and with equal success; having had the satisfaction of seeing all kinds of grain and grass growing up to the edge of the ditch, equal to that of any other part of the field—with the exception of grain not *ripening* quite so soon where it was shaded. The success I have had in making the above experiment, induces me to recommend it with confidence: believing that many individuals might be profitably employed in such a work, where they would otherwise remain idle."

Should you deem the foregoing observations worthy of the space they will occupy in your valuable journal, they are entirely at your service.

Very respectfully,
Your most obed't, W. D.

CHILI PEAS, SIOUX CORN, &c.

Thorndale, near Taneytown,
J. S. Skinner, Esq. *3d April,* 1828.

Sir,—You have often complained of your friends not reporting the success of different kinds of seeds, &c., that you were so kind as to distribute amongst them. I am one of those against which the charge is fairly laid. In fact, I got several things from you which I do not recollect; however, some I do, viz: peas from Albany, said to resist the bugs, Chili peas, Sioux corn, said to be very prolific, cuttings of Cherokee rose, Madeira grape seed, and large wheat, I think from some place near the Baltic. The peas had no bugs when I got them, but their produce was not so, and if they were bug-proof at Albany, it must be owing to a difference in the climate; however, I consider them an excellent thing; they grow large, and are very productive. The Chili peas, when planted on poor ground, produced poorly, and when on good, they always lodged, and mostly rotted before they ripened—after trying them for several years, I abandoned them. The Sioux corn was early, but the ears were so trifling, I considered it unprofitable, and gave it up. The Cherokee rose cuttings were dried, and injured in the carriage, and did not grow. I should like to have some more at a proper season. The Madeira grape seed did not produce one plant. I sowed it in the spring; perhaps that was not the right season? The large wheat, (to my shame be it told,) lay over for three or four years; however, I planted it late last fall, and I find a small portion of it is growing. I am engaged in planting a vineyard, and am anxious to have it enclosed with a hedge, that neither man or beast can break through or climb over. I have sown a quantity of honey locust seed, believing that it will furnish me with plants, that will answer my purpose. I intend planting a double row, and to thicken them by clipping, like a thorn hedge; but having no experience of the article, I will be particularly obliged to any gentleman who has, to give me information on the subject.

Yours, very respectfully,
C. BIRNIE.

P. S. I am sorry I cannot persuade your trustees to take cognizance of the hedging system: I hope I shall soon be able to convince them of the practicability of it, on a pretty large scale.

(From Prince on Horticulture.)

OLIVE, POMEGRANATE, DATE, &c.

Olive, or Olea europea.—This tree, whose cultivation seems now advancing in Florida, may be considered as calculated to impart immense riches to that portion of our country which may be found congenial to its culture. But, perhaps it is not generally known, that in France and Italy, they enumerate no less than seventeen different varieties of the cultivated olive, all of which are esteemed for possessing, to a greater or less degree, the different properties for which the olive is valued. Some varieties are said to produce oil in greater quantity, others that of a more delicate quality, while others are deemed more suitable for preserves, &c. The whole number of these varieties, has been introduced to this country by the author, and are now under culture at his establishment, and will be found enumerated in his Green-house. In England, the olive produces fruit plentifully in a common Green-house.

The Olive--Emblem of Peace.—In old Rome, every new married couple were crowned with garlands of the olive, to represent that quiet and peace which attend, or rather which ought to attend, the hymeneal union. The victor at the Olympic games was honoured with an olive crown. Noah's dove is represented with an olive branch in its beak, as bringing the promise of peace to a desolated world. The bird of the American banner has its branch in one talon, and arrows in the other, as if offering either peace or war to the nations of the earth. The olive was consecrated to Pallas, and was the favourite tree of the virgin goddess. When the god of the trident quarrelled with her, for the honour of giving name to the city of Athens, their peers resolved, that the one who should give the most useful present to mankind, should name the city. Neptune dashed his trident on the sea-shore, and instantly the war-horse arose with flashing eyes and streaming mane; Minerva touched the earth with her spear, and the gentle olive raised its mild head above the earth—the goddess was triumphant.

Pomegranate.—This plant has produced fruit in England, against a south wall, and also at Long island, by being protected during winter. It is far from being tender, and may, without doubt, be acclimated to the country south of the Potomac. It does not seem to be generally known, that there are several very superior varieties of this fruit, such as the large Malta, the sweet fruited, the white fruited, &c.; besides which there are a number of varieties that are particularly beautiful as ornamental flowering plants, such as the double crimson, the monstrous double crimson, the double white, the yellow flowering, the dwarf flowering, &c. General Forman, of Maryland, informs me, that the pomegranate flourishes with him without the least protection.

Zizyphus sinensis, or Chinese Date.—This tree is extensively cultivated in China, and the fruit is much esteemed. The varieties of this fruit in that country, are said to be almost as numerous as those of the plum in Europe. It has latterly been introduced into cultivation in the gardens of Europe, to which it promises to be a great acquisition. Both this and the two following would suit the climate of the southern states.

Zizyphus vulgaris, or common Jujuba.—This fruit is well known in the south of Europe, and is generally called the European jujuba. Its fruit is excellent for preserves, under which form it is sold in the shops of Paris, London, and other cities of Europe.

Zizyphus lotus, or *Lote Tree.*—This produces a drupe of very pleasant flavour, and in North Africa is said to be an article of much importance to the natives, a particular tribe of whom anciently derived their name from living upon the lote.

SILK.

[Every fact upon this subject is interesting, and here are some new ones, shewing the spontaneous growth of the worm and its food, and the uncommon size of their cocoons, in Mississippi.]

Mr. Skinner, *Vicksburg, (Mis.) March* 19, 1828.

Sir,—I have taken the liberty to enclose a specimen of the silk of this country, as it is found in the forest. The size of the cocoons truck me as being remarkable, though from what I can learn, not uncommon in this country. When brought to me, it was about the size of a hen's egg, and differed from all others that I have seen, by having a husk on the outside, in all respect similar to that which immediately enclosed the worm. Between the two husks the silk was extremely loose. It was brought to me by a negro, who said it was found upon a black mulberry. The cocoons are found sometimes upon the linn and sometimes upon the cane. Upon the latter, they are generally small, but upon the linn they are mostly larger than upon the mulberry.

This part of the country abounds with the mulberry; mostly black and red, though there are many of the white. Probably four-fifths of the forest mulberry are barren, but from the shape of the leaf, are supposed to be of the black species.

I am anxious to obtain, some information upon the culture of silk, as applicable to this country. It would give me pleasure, therefore, to hear from you upon the subject.

Respectfully yours,
W. H. BENTON.

[The essay of Mr. Buchanan will have answered the call of our correspondent.]

Silk Manufacture of England.

According to the late statement of Mr. Huskisson, the silk manufacture of England now reaches the enormous amount of fourteen millions sterling per annum, and is consequently, after cotton, the greatest staple of the country. Some will think Mr. H. should no more let this be known, than a merchant should his good voyages.

RURAL ECONOMY.

MALT LIQUORS.

[As Farmers are about to come to a general resolution to dispense altogether with the use of ardent spirits, except as medicine in cases of cramp or other emergencies; and as it will be, at first especially, desirable to substitute for whiskey some light refreshing beverage, all good housewives will wish to know how best to make and preserve small beer. The following directions contain some useful hints for *bottling*. Those given in the same book for brewing, appear to be on too large a scale for common family use—we will endeavour to procure information on that point also, adapted to the wants and convenience of families in the country. If any doubt the practicability of doing most comfortably without ardent spirits, let them look at the Quakers! where is there in the known world, a *class* of people so neat, so cleanly, so snug, so healthy, so comfortable, so moral?]

THE PROPER METHOD OF BOTTLING MALT LIQUORS.

As a necessary preparation for executing this business properly, great attention must be paid to your bottles, which must first be well cleaned and dried; for wet bottles will make the liquor turn mouldy or mothery, as it is called; and by wet bottles a great deal of good beer is frequently spoiled. Though the bottles may be clean and dry, yet, if the corks are not new and sound, the liquor will be still liable to be damaged; for, if the air can get into the bottles, the liquor will grow flat, and never rise. Many who have flattered themselves they knew how to be saving, by using old corks on this occasion, have spoiled as much liquor as stood them in four or five pounds, only for want of laying out three or four shillings. If bottles are corked as they should be, it will be difficult to draw the cork without a screw; and to secure the drawing of the cork without breaking, the screw ought to go through the cork, and then the air must necessarily find a passage where the screw has passed. If a cork had once been in a bottle, though it has not been drawn with a screw, yet that cork will turn musty as soon as exposed to the air, and it will communicate its ill flavour to the bottle in which it is next put, and spoil the liquor that way. In the choice of corks, take those that are soft and clear from specks. You may also observe, in the bottling of liquor, that the top and middle of the hogshead are the strongest, and will sooner rise in the bottles than the bottom. When you begin to bottle a vessel of any liquor, be sure not to leave it, till all is completed, otherwise it will have different tastes.

If you find a vessel of liquor begins to grow flat whilst it is in common draught, bottle it, and into every bottle put a piece of loaf sugar of about the size of a walnut, which will make it rise and come to itself: and to forward its ripening, you may set some bottles in hay in a warm place; but straw will not assist its ripening.

If you should have the opportunity of brewing a good stock of small beer in March and October, some of it may be bottled at the end of six months, putting into every bottle a lump of loaf sugar; which, in the summer, will make it a very pleasant and refreshing drink. Or if you happen to brew in summer, and are desirous of brisk small beer, as soon as it is done working, bottle it as before directed.

Where your cellars happen not to be properly calculated for the preservation of your beer, you may use the following expedient: Sink holes in the ground, put into them large oil jars, and fill up the earth close about the sides. One of the jars will hold about two dozen bottles, and will keep the liquor in proper order; but care must be taken that the tops of the jars are kept close covered. In winter time, when the weather is frosty, shut up all the lights or windows of your cellars, and cover them close with horse-dung, which will keep your beer in a very proper and temperate state.

Cost of a Steam-Engine for a Small Mill.

J. S. Skinner, Esq. *York, April 12*, 1828.

Sir,—In reply to the inquiry of your correspondent, F., wishing to know the cost of a steam-engine, suitable for driving one pair of mill-stones of three and a half feet diameter, we state, that our price for one of that power is eight hundred and fifty dollars, delivered and set in motion in Baltimore, or any place not more remote from us.

Respectfully yours, &c.

DAVIS & GARTNER.

LADIES' DEPARTMENT.

(From Blackwood's Magazine.)

ADVICE TO THE YOUNG FEMALE.

BY JAMES HOGG.

She that giveth heart away
For the homage of a day,
To a downy dimpling chin,
Smile that tells the void within,—
Swaggering gait, and stays of steel;
Saucy head, and sounding heel,—
Gives the gift of wo and weeping;
Gives a thing not worth the keeping;
Gives a trifle—gives a toy,
Sweetest viands soonest cloy.

Gains! Good lord! what doth she gain?—
Years of sorrow and of pain;
Cold neglect, and words unkind;
Qualms of body and of mind:
Gains the curse that leaves her never:
Gains the pang that lasts for ever.

And why? Ah! hath not reason shown it?
Though the heart dares hardly own it,
Well it traces love to be
The fruit of the forbidden tree;
Of woman's wo the origin;
The apple of the primal sin;
The test of that angelic creature;
The touchstone of her human nature;
Which proved her, though of heavenly birth,
An erring meteor of the earth,—

And what, by Heaven's sovereign will,
Was trial once, is trial still;
It is the fruit that virgin's eye
Can ne'er approach too cautiously;
It is the fruit that virgin's hand
Must never touch but on command
Of parent, guardian, friends in common—
Approved both by man and woman!
Else wo to her as maid or wife,
For all her days of mortal life;
The curse falls heavy on her crime,
And heavier wears by length of time;
And, as of future joys to reft her,
Upon her race that follows after.

But oh! if prudence and discretion
Balk the forward inclination,—
Cool the bosom, check the eye,
And guide the hand that binds the tie,—
Then, then alone is love a treasure,
A blessing of unbounded measure,
Which every pledge of love endears;
It buds with age, and grows with years,—
As from the earth it points on high,
Till its fair tendrils in the sky
Blossom in joy, and ever will,
And woman is an angel still.

STAYS.

Strong stays, which do the duty of the muscles placed by nature around the spine, causes the muscles to dwindle from inaction, so that afterwards, when the support of the stay fails to become unequal, the back bends or twists. Stays, therefore, can neither help to make strong and well-formed backs originally, nor can they be a remedy after the weakness has appeared. A healthy young woman from the country, whose spine lies deep between the firm cushions of the muscles which support it, if braced up in tight stays, according to town fashion, will frequently exhibit, at the end of a short time, such a wasting of the flesh, that the points of bone in the spine may be counted in the eye.

(From the New York Morning Courier.)

TO MOTHERS.

It may be useful to know, and will be the means of alleviating much pain, that when the breast and nipples are much inflamed, and cannot be sucked, but with the most intense suffering to the mother, a very simple remedy will relieve the breast from its milky burthen, without the slightest suffering. This is no other than filling a common bottle with hot water, and after standing a few minutes, empty it and apply the mouth of the warm bottle to the diseased nipple, and the milk will flow spontaneously into the bottle, giving at the same time a pleasurable sensation, and a complete relief to the overloaded breast. A Physician.

DEATH.

At Clay-hill, her seat in Amelia county, Virginia, on Saturday evening, the 12th of April, 1828, in the 75th year of her age, Mrs Frances Tabb, relict of the late John Tabb, of Clay-hill, Esq., and daughter of the late Sir John Peyton, of Isleham, in the county of Gloucester, baronet; lineally descended from the Peytons of Isleham, in Cambridgeshire. By the death of his son John, younger brother of Mrs. Tabb, by a second marriage, this ancient Baronetcy became extinct. As he never assumed the title, after her father's death, it was claimed and held by persons in England not entitled to it, under a false allegation, in Debrett's Baronetcy, that Sir Robert Peyton, who emigrated to Virginia during the civil wars, in which he was a severe sufferer, left no heirs male. Beautiful in person; affable, graceful and accomplished in manners; endowed with wealth unexampled in that quarter of the country; and with a strength of character beyond her sex, no woman ever fulfilled the duties of wife, mother, and mistress of a family, with more fidelity and zeal than Mrs. Tabb. Her munificence was princely, rather than that of a private person in our country. Her virtues were strictly domestic. Intent on promoting the welfare of others, utterly regardless of self, she was forever occupied in some household labour, or some work of love—ministering to the sick, whether among her descendants, her guests, her neighbours, or her slaves. Her hospitality was boundless; her benevolence without a parallel; the generosity of her character has never been exceeded; her fortitude and presence of mind never surpassed. This is no vulgar eulogium of a descendant or a legatee. It is the unbiassed and unbought offering of one who was long honoured with her friendship; to whom, for more than forty years, she was an object of respect, approaching to reverence; who loved her living, and laments her dead.

The following anecdote will serve to shew, that the writer has not been drawing on his imagination for these traits of character

Between midnight and dawn, Mrs T. was aroused by a tremendous noise in her dining room. Instead of indulging in female terrors, she arose from her bed, took a candle in her hand, and proceeded alone to the room whence the noise came. She found that the whole plaistering of the ceiling had tumbled on the floor. She told the writer of these lines, that she thought it was some thief or thieves, whose object was to break into a large pantry adjoining, where liquors, plate, &c., were kept; "and I was sure," said she, "that as soon as they saw me they would run." Yet there was nothing in the least masculine in her manners or person. No *fine* lady could be more delicate than was this fine woman.

SPORTING OLIO.

(From the Annals of Sporting, for January, 1828.)

Extraordinary Feat

A medical gentleman lately backed his own horse, (standing 15¼ hands high) for 100*l.* to go fifty miles in five hours The wager was decided on Friday, Dec 7, on the Brighton-road. The owner of the horse rode the distance himself; he weighs twelve stones, and, including the saddle and bridle, the animal carried about thirteen stones. The fifty miles were accomplished in four hoors and twenty-five minotes, thus winning by thirty-five minutes, and the whole distance, with the exception of a mile and a —, was performed in a trot.

Pedestrianism.

Captain Hinks, a gentleman well known in the sporting world, had undertaken to run six miles in thirty-two minutes, for 100 guineas; but forfeited in consequence of ill health. Mr. F. Harcourt was the gentleman who had then bet against the undertaking, and he subsequently backed himself, to run the six miles in less time than the Captain, for 100 guineas. The match took place on Monday, November 24, at Hounslow. It was done as follows, upon a one-mile piece of ground Betting, at starting, even, and, in some cases, 5 to 4 on the Captain, but very few takers:

Captain Hinks.

	M.	S.
The first mile, ...	4	12
Second do.	4	40
Third do.	5	00
Fourth do.	5	28
Fifth do.	6	2
Sixth do.	7	18
Total, . . .	32	10

Mr. Harcourt.

	M.	S.
The first mile, ...	4	6
Second do.	4	52
Third do.	5	10
Fourth do.	5	56
Fifth do.	6	30
Sixth do	7	22
Total, . . .	33	56

The pedestrians started at opposite ends. Betting ran thus, after the first two miles, 5 to 4 in favour of the Captain—and, after five miles, 7 to 4, and no takers, on the Captain, who came in quite fresh.

Backward and Forward Match

Barclay, as he calls himself, has been performing the hundred miles in twenty four successive hours, each alternate mile backwards. He started on Monday, Dec. 17, from the Golden Lion, Lanend, to the Cross Keys Inn, Delph, and continued to and fro, until near one o'clock next day, when he completed two miles more than his undertaking, in consequence of a blunder in the accountant.

Fox Hounds.

Col Wyndham's fine pack met at Applesham-furze, on Tuesday, 4th December, when, among about a hundred and twenty horsemen, full *eighty scarlet frocks were exhibited.* The day was damp, but not cheerless—that the inspiriting brilliance of the field prevented; and the subsequent sport, though it did not turn out of the severest quality, was very distant from the unamusing. Soon after meeting, a brace of foxes were found in the furze, one of which was presently chopped; the other broke cover in good style, and, after a run of about five miles, and scouring through Stubb's bottom, was killed in Stoke-furze. This event had scarcely occurred, when a third fox was unkennelled in the gorse patch, which stood for Chenkenbury-ring, with the dogs in full cry, every horse in rapid motion, and, apparently, every rider happy. The ring was scudded from down Wiston-bosthill into Wiston park, and then merrily on for West Grinstead. After a chase, altogether of about twelve miles; however, the haze became so opaque, and the drizzling discharge from the clouds so increased, that the dogs were called off, and the diversion was prematurely put an end to About Chenkenbury-ring, a Mr B. and a Mr. M. had an unpleasant altercation, during which the horse-whip was mentioned, but not exercised by either party.

A Dead Shot.

At the middle of November, a youth, of Skipton, only fourteen years of age, being ou alone, raised eight grouse, out of which, at the first shot, he killed four. He pursued the remaining four, and coming up with them, at the second shot he killed three. He subsequently raised another covey, out of which, at the third shot, he killed two—destroying, in three shots, nine birds; and this feat was accomplished with a single barelled gun.

OBITUARY.

Died, on the 25th ult. in Fairfax county, old Juno, for many seasons the favourite leader of the Washington pack of fox hounds.

If the deceased was not the best to *find*, she was amongst the best *chasing* hounds that ever was followed; whether at *hits. heels*, or *close running*, she had few eqoals. Her voice was truth itself, and whenever she *gave tongue*, her companions always *hark'd* with attention But after being herself *in at the death* of so many, grim death has *run into* her Alas! nor the woods of Arlington, nor Chapman's fields, nor Factory hills, will ever more re echo to her voice—neither, by one of *her* infallible *hits*, shall we be again reminded of the poet's lines—

> ——————"See where they spread,
> And range around, and dash the glittering dew.
> If some staunch hound with her *authentic* voice,
> Avow the recent trail, the justling tribe
> Attend her call; then with one mutual cry
> The welcome news confirm, and echoing hills,
> Repeat the pleasing tale."

A Member of the Washington Hunt.

April 2, 1828.

MISCELLANEOUS.

Mode of condensing and preserving Vegetable Substances for Ship's Provisions, &c.

The quantity of liquid matter which enters into the constitution of vegetables, is very great —when they are deprived of it, their bulk is very trifling. The preparation of animal food, called *pemmican*, in which six pounds of meat are condensed into the space of one, is mainly effected by abstracting all the fluid from it Vegetables may be treated in the same way: let them undergo the process of boiling over a fierce wood fire, so as to preserve their colour when completely cooked; grind them into a complete pulp by some such means as are used to crush apples for cider; then let them be subjected to the action of the press, (being first put into hair bags, as grapes are in the wine press,) till all the fluid matter is separated from them; the substance thus becomes condensed hard and dry Then let it be rammed hard into glazed jars or tin cases, secured by two pieces of bladder tied tightly over the mouth. In this state, place them in a broad pan, and boil them until the air within is absorbed, which is indicated by the bladder coverings becoming concave by the pressure of the atmosphere; and, when placed in stone, as long as the covers remain in this state, the contents are safe; but if, on the contrary, the covers rise into a convex shape, it is certain that fermentation has commenced, and the jars must either be immediately opened, and the contents used, or they must be boiled again. The preparation of the vegetable matter for use, is accomplished by adding a sufficient quantity of milk, water, gravy, lime juice, &c. to it, and warming it up. By this means, a ship's crew may always have fresh vegetables, even on the longest voyages. It is worthy of remark, that the most irritable stomach is not offended by vegetables treated in this way. [*Journal of Science.*

THE FARMER.

Baltimore, Friday, April 18, 1828.

☞The embarrassment which pervades the agricultural community in the middle states, we are sorry to see, prevails in a degree not much less severe among the cotton planters of the south, if we may judge by the proceedings (published in a preceding page,) of a public meeting called in Georgia, to deliberate on the causes of uncommon distress and the means of alleviating it. We would suggest that meetings be called for the same purpose in Maryland and Virginia, if we could see to what practical measure of relief they could give rise. At all events, it would seem expedient, that farmers should more frequently meet together to compare notes and form associations, in such manner as to enable them to bring into action the intellectual force of their own corps, for the benefit of their peculiar interests. How that is to be done, or what is to be done, is it not so easy to say There must, however, be a *beginning* to deliberation as well as to action. A man often takes his pen to write on a particular subject, without precisely knowing what views of it are to be taken; but after a little reflection, it evolves itself; thoughts appropriate to it occur as he proceeds, until an essay is stricken out, well calculated to amuse and instruct, or fraught with suggestions of enduring utility to his fellow citizens. Dr Johnson, the great leviathan of literature, commenced one series of profound moral essays, by a chapter, "On the difficulty of choosing a subject"

But, unhappily for the farmers who would propose to hold occasional deliberative meetings, there is no difficulty in finding a topic to dwell upon. *Pecuniary distress*—debts, with their ever accumulating interest,* the impossibility of longer indulging their family in articles of dress, and in modes of living, which, in times of the strictest economy, were never before esteemed luxurious—above all, and most painful of all, the excessive expense of a good education for their children. These are topics of universal concern, and causes of intense anxiety to almost every planter and farmer in the country. We are not competent to add any thing to the reasoning of the gentlemen whose proceedings we publish; but something in the way of mitigation, at least, may still be hit out by further discussion; to which we respectfully invite our agricultural friends, either at public meetings or in the Farmer, or both. It strikes us that something may accrue from public deliberations and resolves; *in this way.* There is a natural repugnance in foregoing certain expenses in dress, furniture and equipage; in our tables, &c. One is ashamed to retrench in this, and another in that, because his neighbour does not do it; and in this general struggle of pride against necessity, the latter prevails, and all are involved in one common ruin. The rich miser, who smiles at their infatuation, and awaits its calamitous results, is the only one that survives the wreck; he gathers up the fragments of their estates at public auctions, and, fiend-like, rejoices in the desolation that surrounds him. Let them, then, enter into resolutions to set examples to, and to countenance each other in the practice of *every possible retrenchment;* to go back to that system of the strictest economy in the smallest details, which characterized the manners and mode of living of our forefathers: finally, it must come to that, and how much better to divest ourselves at once of all false pride, and voluntarily to impose abstinence and self-denial in every practicable form and particular, than to bow the reluctant neck after a protracted and graceless struggle? We have not room to pursue this unpleasant theme, but we cannot forbear to exhort our friends, that, whatever else may be done, they banish from all their deliberations, the *hateful spirit of party,* and permit it not to aggravate or give false colouring to privations that grow out of the new relations of the world, and the altered condition of other nations. We would promise to add, in our way, what may occur as apposite to the times and the situation of the people, for we hold it to be every man's duty to lend his counsels, our professions of sympathy are not words of course; they come from the heart, but besides the expositions in the proceedings before referred to, we observe by the last Southern Agriculturist, that the subject has been taken up by a gentleman, than whom we know of none more able to analyze it thoroughly, so we cheerfully take in sail—

> "Larger barks may venture more,
> But little boats should keep near shore."

As poor Richard says.

In a circular from Whitemarsh B. Seabrook, President of the United Agricultural Societies of South Carolina, to the members of that Society, which we shall publish at length in our next, he asks, amongst others, the following question:

What do you consider to be the prominent evils under which our agriculture labours, and what their remedies?

Nothing but the want of room to give it entire, and unwillingness to divide it, has prevented us from publishing Mr. Seabrook's able address, on a late occasion—sent to us by a friend.

☞From a correspondent in Talbot county, we learn, that the wheat crop looks remarkably well; promising the most abundant harvest that has been reaped for many years.

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* A paper which lies before us, published in Queen Anne's county, Md. contains advertisements for sheriff's sales of about twenty estates, and about 5000 acres of land, besides slaves, cattle, horses, &c.

LATEST FOREIGN INTELLIGENCE.

(Received at New York by the packet ship Brighton.)

Paris, February 25.

We have this instant received fresh letters from Constantinople, dated the 26th of January. They are extremely interesting.

"Circumstances appear at length to indicate the approach of a crisis which has been long feared. The last hatti scheriff, which destroys all hopes of reconciliation with Russia, as well with respect to its internal affairs, and the treaty of Ackerman, as with regard to the proposals of pacification, has been read in all the mosques; and the immediate closing of the Bosphorus, against the ships of all Christian nations, affords a proof that the late negociations have so incensed the Porte, that it no longer cares for the maintenance of the existing treaties with the other States. In the midst of all these alarms, the military preparations and measures of precautions are prosecuted with great diligence. A palace for the Sultan is building on the Asiatic coast, with ditches and fortifications, to which he may retreat in case Constantinople may be besieged.

"The march of troops to Adrianople continues, as well as the sending of the Sultan's equipages, who, according to a report which is generally believed, will very shortly go to that city."

[*Gazette de France.*

COMMERCIAL RECORD.

(From the New York Merchants' Telegraph.)

Liverpool, March 1st, 1821.

We continue to experience a regular and rather extensive demand for cotton from the trade, but no improvement in price can be noticed in any description; on the contrary, new uplands and Orleans are lower, and Brazils have declined 1-8th per lb. Sea Islands have been in increased demand, but only at previous prices. That confidence which the extraordinary consumption is calculated to inspire, seems for the present to be counteracted by the weight of our stock, and the increased import the last two months; which, contrasted with the two first months of last year, shew an increase of rising 30,000 bags, and hence it is that holders in general are willing sellers. The sales of the week amount to 12,470 bags, viz:—490 Sea Island 11 a 16½; 150 stained do. 6½ a 9½; 5610 Uplands 5580, 5 a 6⅜ 30 a 6¼; 1900 Orleans 1890, 5¼ a 7⅜ 10 a 8¼; 1170 Alabamas 5 1-8 a 6¼; 730 Pernambuco 7⅜ a 7⅞; 520 Bahia 7 3-8 a 7⅞; 1020 Maranhams 7½ a 7⅞; 170 Demararas 7¼ a 8 3-8; 140 Egyptian 7¼ a 8⅜; 30 Bourbon 8⅜; 80 Carthagena 4⅜; 10 Bahamas 6½; 950 Surats and Bengals 4 a 4⅜.

The imports this week amount to 9684 bags.

There has been a moderate demand for cotton to-day, the sales are estimated at 1500 bags without any alteration in price.

In ashes a fair business has been done, but in some instances a trifling decline has been submitted to—the sales are 50 bbls. New York Pots at 32s. and 60 bbls. old pearls at 31s.; 326 bbls. Montreal pots at 30s. 6d.; 31s. for new, and 29s. 9s. a 30s. for the import of 1826; 320 bbls. pearls at 31s. a 31s. 6d. for new, and 30s. a 30s. 6d. for old.

Tar—300 bbls. brought 12s. 9d.

Turpentine—1060 bbls. from Wilmington were offered to-day by auction, for which 12s. 9d. was bid; 400 bbls. have since been sold at 13s. 3d. per cwt.

Rice—A mixed parcel of 90 casks has been sold at 15s. 6d. for export.

Flaxseed—260 hhds. New York have been sold at 47s.—50 at 47s. 6d. and 50 at 52s.

Hides—200 New York sold at 4 3-8d., 500 Boston at 5 1-8d.

In other articles we have no alteration to notice.

SINCLAIR & MOORE,

Have received from near Darby Creek, twenty whole and eight half boxes of SCYTHE STONES, which they offer for sale.

In Store—Early and late POTATOES, suitable for seed, at low prices: amongst them are the Mercer, so justly admired for their mealy whiteness, early maturity and productiveness, equally suited for early or late crops; Millet, Lucerne, Mangel Wurzel, Ruta Baga, and other FIELD, GARDEN and BIRD SEEDS; a general assortment.

In their hot-bed, for proving Garden Seeds, they have raised several thousand early and large York Cabbage and Tomato Plants, at 50 cents per hundred.

Also, CULTIVATORS, with steel tines, made to suit the culture of corn, tobacco, cotton and vegetables—performing the work two-thirds faster than the plough, in mellow grounds. PLOUGHS assorted, as usual, and GEARING complete for the same.

And are now manufacturing and providing HARVEST TOOLS, such as Grain Cradles, Grass and Grain Scythes, with and without hangings; Hand and Horse Rakes; Spring Steel Forks; Wheat Fans, which will clean fast, and smaller ones, suitable for small farms, or for shipping abroad to clean coffee, price $15; both which we will warrant to perform the work well.

They weave and constantly keep a supply of all such kinds of WIRE as are suitable for screens, safes, cellar windows, riddles, sieves, &c.

COTTON GINS, suited to hand or water-power, from twelve to sixty saws, at moderate prices.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-street, 5.00; city mills, 4.62½; Susquehanna, 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .90 *a* .95—best white wheat, 1.00 *a* 1.05—ordiny. to good, .80 *a* .90—Corn, .40 *a* .41, in demand—Rye, .42 *a* .44—Oats, 21 *a* .23—Beans, .80 *a* 1.00—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.25—Timothy, 2.50 *a* 3.00—Barley, .80—Flaxseed, .75 *a* .80—Cotton, Virg. .8 *a* .9½—Louisiana, .10 *a* .13—Alabama, .9 *a* .12—Mississippi, .10 *a* .13—N. Carolina, .9 *a* .10½—Georgia, .9 *a* .10½—Whiskey, in hhds. 1st proof, .22—in barrels, .24—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna. No. 1, bbl. 6 00 *a* 7.00; do. trimmed, 7.00 *a* 7.50—Herrings, No. 1, bbl. 2.87½ *a* 3.25; No. 2, 2.75—Mackerel, No. 1, 5.62½; No. 2. 5.37½; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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(From the New York Farmer.)

CULTIVATION OF THE GRAPE.

Our highly esteemed patron and friend, Dr. Samuel L. Mitchell, has favoured us with the following letter, addressed to him by W. Elderton Allen, Esq., one of the members of the New York Horticultural Society.

Dear Sir, *New York, April* 2, 1828.

When I casually asked you whether a few remarks on the vine, arising from thirty-five or more years experience and observation in Europe, as an amateur, might be worth submitting to our society, I little expected the honour of your accompanying your opinion in the affirmative, with a request that I would also allow Mr. Fleet to publish my proposed communication for the benefit of the public.

The polite and kind attention, which, as an entire stranger, I have received at your hands during my residence in New York; the pleasure which I have experienced in being permitted by you to share that fund of general knowledge and information which you so pre-eminently possess; added to the conviction of my having hitherto been an entirely useless member of the society, to which you did me the honour of introducing me,—are such forcible motives for my using every endeavour to prove the estimation in which I hold your favours, that, however much I dislike making a public exhibition of what little I happen to know, I shall submit it to you with pleasure, and leave you to judge whether it is worth communicating farther.

I am fully aware, that while book instruction is mere surplussage to the practical horticulturist, it is also in a great degree useless to the inexperienced cultivator. The vine, however, admits of so many different modes of cultivation, all equally good, as varieties adapted to local circumstances, that in embracing, as I intend, such as have come within my observation, I shall hope to amuse those of my readers who are wholly unacquainted with the subject, however worthless my communication may be to yourself and the learned and practical members of the society, who, doubtless, possess as good, at least, and in all probability, better information, than I do.

As the subject is extensive, and this is the season for planting, (though far advanced.) I shall limit my present letter to such introductory remarks as I consider of most immediate import. For until the planting of the vine has become more general than it now is in the northern states of the Union, its mode of cultivation is but a secondary object.

Before I proceed, I must state that I am far from inclined to take upon myself to recommend experiments of any kind. They too frequently disappoint the apparently best founded calculations, to induce any disinterested party to attempt, at the risk of the obloquy attendant on non-success, the introduction of any system, or matter, before it has undergone sufficient trial to establish its efficacy.

The experience which I profess, is the result of that, at any rate harmless, if not commendable kind of mania, for possessing a smattering, at least, of horticulture, agriculture, &c. which is peculiar to so many of my fellow countrymen, whose fortunes enable them to gratify their taste in whatever way their inclinations lead them; and it may perhaps appear singular to those who advocate some particular system, as that alone which can succeed, that I should say I am not ashamed to admit, that after trying and seeing tried almost all the schemes of the last thirty-five years, relating to the grape, and having been alternately an opposer of, and a convert to several, (especially in France, lately,) I am so far from being now prejudiced in favour of any one in particular, that I have come to the conclusion, that in a good soil, natural or artificial, the vine is, of all the fruit-bearing tribe, the easiest of cultivation.

Secondly—It may almost be said to be exempt, by nature, from numerous diseases* to which fruit trees in general are liable, and which so frequently disappoint the best and most experienced cultivators of the long-looked-for fruits of many years labour.

Thirdly—Under proper cultivation, and that of the simplest kind, as will be seen in the sequel of my explanations, it may be rendered perpetual for centuries in the same place, without the necessity of obtaining new plants.

Fourthly—It may be confidently asserted (contrary to the received opinion in this state,) that it is not liable to be affected by the severest cold of winter, nor the greatest heat of summer; in proof of which I subjoin a few notes of the extreme temperatures to which the extensive grape countries of Europe have been subjected during the last century, by which it will be seen that the vine there has been exposed to vicissitudes of cold and heat equal to any general average known here; and I have never heard of its destruction either in France or Germany, during the severest winter, although the olive and the fig have been partially annihilated or greatly injured.

It will be said, perhaps, that the cold, in those parts of Europe, is seldom, if ever accompanied by those piercing winds so prevalent in this country, and which Captain Parry and other polar navigators have noticed as insupportable even by the human frame, in the more northern climates, producing violent head-aches, and various distressing effects on the face, while the most intense abstract cold, unattended by wind, did not prevent the enjoyment of their principal winter amusement, the chase.† As far as my own opinion extends, I see no reason why the vine should be killed by these winds any more than the peach; nor shall I, in the absence of better evidence than I have been able to collect, feel disposed to attribute either to frost or wind, the destruction of the few vines which have perished here and there, in this state, during winter. The *effect*, of which cold and wind are supposed to be the *cause*, may equally and far more reasonably be attributed to an imperfect ripening of the wood, which would be sufficient to produce a partial destruction of the ends, or even the whole of certain shoots of the year, or to a forced and premature rising of the sap, followed by subsequent cold and wind, which might, with any fruit tree, as well as the vine, cause its entire destruction. These, however, are casualties of too partial a nature to cause any alarm, in respect of the general average success in the propagation of the grape as an ornament and luxury in the garden. Its success in vineyards also, in this state, on a larger scale, for *fruit*, I should little doubt, if planted on sites naturally protected from the north-west wind, or even in any moderately sheltered spot whatever, under a mode of planting and pruning which I will presently point out for its cultivation and protection.

With regard to its production, *in wine*, either as to quantity or quality, or the sort of grape most likely to produce the best wine, and what resemblance to any known French or other wine, might be expected to be produced in this or any other of the United States, from any particular selected grape, I will not pretend to anticipate. A few facts within my own personal knowledge, will show that experience alone can decide these points.

The wine called Tinto Madeira, is from the Burgundy grape, planted at Madeira, where it was originally carried by the late British Admiral Lord Nelson. It is a strong wine, with a faint tint of a dark colour, and resembling Madeira in flavour; while the Burgundy wine produced on its native soil in France, from the same grape, is, as you well know, of a full red, and as unlike Madeira as possible, either in taste, smell or otherwise. It is now about twenty-five years since I tasted the first of this wine, which came to England as a present only. It is now plentiful.

A Neapolitan wine, of which I do not now recollect the name, differing entirely from Madeira, and resembling the light Sicilian wines, of which I also remember to have partaken at the table of one of the Admiral's friends, within a few years of the same period, was the produce of the Madeira grape which Lord Nelson took over to Naples for the Queen.

A very coarse, rough, deep coloured wine, the produce of some parts of Spain, is from what is called the Black Portugal grape, planted there, where the wine made from it is fit only for making a mixture, of a nauseous, disagreeable kind, in resemblance of Port wine, so much and so justly esteemed, and which is made from the same grape grown in its native country.

The Constantia, or Cape wine, as it is also called, from the Cape of Good Hope, is from a Frontignac or Black Muscat grape, and far excels any of the French wines from that fruit. In different departments of France, the same species of grape produces a distinct quality of wine, in vineyards at a short distance from each other. The same tract of country in which the sparkling and still Champaigns are made, which I need not say are white wines, produces, from the identical same sort of grape, a common red wine, called there "Vin ordinaire de Champagne."

In the Burgundy district, where the principally cultivated grape is black, and the general run of the wines red, a very superior Burgundy Champaign (white.) has been made within the last four years, which is considered as far excelling, in richness and flavour, that which is the produce of the country from which the Champaign took its name.

In the same district the famous Burgundy called Clos Vougeot, the most esteemed of all, is the produce of a small inclosure called "Clos Vougeot," (Vougeot inclosure;) while numerous inferior qualities, passing under the same name, are made from the immediately surrounding vineyards. The difference between the wines of Upper and Lower Burgundy, is still more striking. The same phenomena exist on the Upper and Lower Rhine, with the Hock and Rhenish wines. In the neighbourhood of Bordeaux, it is the same with the different Clarets. In Portugal, it is so remarkable in the Port wine, of which so many thousands of pipes are annually consumed in Great Britain, that the question of the monopoly granted by the Portuguese government to the native Oporto merchants, of the exclusive privilege of purchasing in a particular district, has not only been considered of sufficient importance to be made the subject of a distinct article in favour of British resident merchants, in a treaty of commerce between the two countries, but the performance of the treaty, when made, was so obstinately refused by the Portuguese government, as to become the object of Parliamentary interference on the part of England. That good wines, of various kinds, might to a certainty be produced in different parts of this state, and in some or all of the midland and southern states of the Union, there cannot be a question. A native grape, (Vitis Æstivalis,) has been cultivated for very many years, near St. Ferdinand, St. Louis, and St. Charles, on the Missouri, and the wine is said to be very good.

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* Mildew—The white insect, which we call in England, American Blight, so common to old apple trees—the Green Fly—The Bug—Insects—all the species of Caterpillars, &c. cannot be called "diseases," as trees and crops of various kinds are liable to them in particular seasons, especially the Pea called the Blue Prussian, if sown in Europe after midsummer.

† Foreign as it is to the growth of the grape in New York, it may be curious to those who are not acquainted with the fact, to be told, that Captain Parry and his crew, during the winter of 1819, when the cold was for five successive months frequently 72 degrees below freezing, killed different species of animals, wild duck, &c. to the surprising weight of 3766 lbs.; consisting of 4 musk oxen, 24 rein deer, 68 hares, 53 wild geese, 59 wild ducks, and 144 ptarmigans, (Tetrao lagopus.) Such is the capacity of the animal creation to resist cold.

That many of the well exposed heights in this and the adjoining states, especially those in south-east aspects, would in all probability produce a far better wine than the composition sold in the New York market under the name of Imitation Purt, there can be little or no doubt; and I see no reason why the semi mountainous ranges of hills with which the greater part of the Union abounds, should not, in good aspects, and that at a period not far distant, produce as excellent wine as the rich Tokay so much esteemed, of ancient date, or the long renowned Coté Roti, (or Roasted-side-of-the hill wine,) of the south of France.

To conclude these digressions, which would extend to a great length, were I to quote all the examples which the grape affords, of change of aspect and situation effecting a change in the quality of the wine, I will only add that the purplish-gooseberry-red grape, which produces the finest Champaign, and also the black Burgundy grape, from which the Burgundy wine is made in the department of that name, and its environs; and from which last mentioned species of grape an infinite number of excellent wines are made in different localities—are both grown in the neighbourhood of Paris, and the wine produced from them in that quarter, is of a comparatively inferior quality, taken as a whole.

It is worthy a remark, that with all these changes *in the wines*, which are attributable partly to soil and partly to the influence of southern hill exposure, well protected flats, and their reverse, the *grape as a fruit*, is uniformly excellent in the gardens, and very good in the vineyards. All the varieties of the Muscat,* (Frontignan or Frontignac, as they are also called,) retaining in the former their delicious perfume-like flavour throughout the country; while many individuals obtain, from local circumstances, full-bodied, well-flavoured wines, which want nothing but a fashionable provincial name, to render them perfect.

To return to the question of cold: and with the view of anticipating, as far as may be, any objections which may be opposed to the theory assumed by me, that the vine is capable of resisting the frosts of this country, you should be informed, that whenever the *grape*, (not the *vine*,† though one is often mistaken for the other,) is injured by frost, in Europe, it is not by that of winter. It is generally the effect of an unusually advanced spring, accompanied with late night-frosts, after the fruit-bearing shoots are formed. The crop is also often reduced to a third or a quarter crop, as the French term it, by what the common people call, being "gelé," and having in consequence "coulé," meaning that it has been frost-bitten or chilled, and in the phrase of our English gardeners, "damped off."‡ This, however, is most commonly the effect of cold heavy rains, in the early blooming of the vine, which injure the stamens of the flower, or beat off the farina before the office of fructification is performed; as is known to be the case with the strawberry and other fruits, in cold wet seasons.

Among the numerous agreeable, and to me most interesting and instructive conversations which I have had the pleasure of holding with you, on the climate, and vegetable and mineral productions of this country, I think I collected from you, in confirmation of what had struck me as the fact, that in this and other northern states of the union, the seasons appear, as it were, to pass almost immediately from winter to summer, without that gradual introduction to the latter which Europeans call spring; the nights of which, preceded by warm days, re-assume their winter temperature after vegetation is far advanced, and the days themselves also present frequent sudden changes in the wind, from a hot southerly in the morning, to a cold north easterly in the afternoon; which, in some seasons, in England more especially, extend to the beginning and middle of June, and destroy the fruits. The winter in this country, on the contrary, seldom, if ever, re-appears till its due season, when once the warm weather has begun; the vine, therefore, from a comparison of this climate with that of Europe, may fairly be considered as having an equally good chance in winter, and a much better in summer than it has there, as far as the prospect of surviving the cold in the former season, and producing its full crop of fruit in the latter, are in question.

When I look round New York only, and observe the age of the fine vines which have survived every change of season, annually producing a fair crop of fruit, under evident marks of a neglected culture; and, when I see the vigorous growth of better managed vines, which are to be found in the neighbourhood, notwithstanding the extraordinary inclemency of the preceding winter of 1826—7; and when it is observed how few have sustained any material injury, I think the facts which I have endeavoured to prove, of the vine being able to resist the effects of cold under the lowest average temperature, are sufficiently established, not only to justify every reasonable exertion towards its propagation, but as holding out a far greater prospect of success, in the present enlightened state of this country, than the old world had reason to expert from the introduction of that now indispensable and most common necessary of life, wheat, from Asia Minor; or than England could ever look forward to, from the planting of the cherry by the Romans. Taking a nearer view, and turning to the New York market, who would have believed but a very few years ago, that the Cape Brocoli, always a very dear and highly esteemed vegetable in London, and to this moment but little introduced in France, could have attained the perfection which it has?—a perfection surpassing the common run of that grown in England.

I shall now proceed to submit to you such methods of planting the vine, as immediately strike me as the best for gardens and small enclosures, or even yards, if they are not very much confined; leaving the less pressing subject of vineyard planting for some other opportunity.

My first object will be that of laying down such simple rules as will be readily complied with, and at the same time produce the earliest possible enjoyment of the fruit. I have observed, in many places, a great preparation of immense trellis work for a *single vine;* which, with the view of covering the proposed fabric in a time far without the bounds of possibility, is spoiled the first year of its taking to the ground, or at least weakened for many years, by leaving its primitive leading shoots too long, in the endeavour to reach the top of the frame and immediately begin the desired work of covering it; accompanied at the same time by the too generally received notion that, because there is a great length of wood, there must be an equally abundant produce of fruit.

A *single vine*, at the end of five years, perhaps, but it will probably be eight or ten, will cover an extensive awning of trellis work, and of itself, under judicious management, be sufficient for the place. Very little fruit, however, could be expected for several, not to say many, years; *when, by planting from eight to ten vines, instead of one*, at a distance of about two feet from each other, and adopting a mode of pruning, which I will, on some future occasion, point out to you, not only would a very fair produce in grapes be obtained in about the third year, (a few, perhaps, the second,) but an opportunity would be afforded of choosing the best vine, or two or three vines, from among the number, for effectually and speedily covering the trellis; while those kept short, might still be left, and continue to produce fruit abundantly, in addition to the vines on the top trellis.

The vine, again, is too apt to be considered by persons to whom its culture is a novelty, as in the nature of, or in the same light with, the peach, and that an equally closely branched tree is to be obtained; and this occasions their spoiling it by leaving, the shoots long, like peach branches, in the expectation of fruit at each bud.

Without going further into these subjects, I will proceed to what I consider the best mode of planting the sort of grape most likely to insure success, though many others may be equally good, and turn out better for this climate on trial.

As to the planting, it is needless to say, that if the soil is poor, it should be properly dug two spit deep, as the gardeners call it, and manured with *well rotted cow dung*, or pig-dung, in preference to any other, but any will do *if well-rotted* If the soil is very sandy, a mixture or compost of half loam and *half-rotted* dung, should be well dug in, with the natural sandy soil, all which is too well understood to need any detail.

The vine to be planted should be cut to two eyes at the utmost, but one good one is preferable if the joints are long. The cut to be always made about half an inch above the eye, to which you decide on cutting

If a row of vines are to be planted near paling, house, barn, wall, or the like, or for a long trellis, or otherwise, a trench should be opened of such a depth as that the upper eye of the plant, from which the upper shoot is to arise, should stand about six inches below the level of the general bed or soil in which the trench is cut. This is very essential towards providing against that common evil which so constantly attends vines in their first year's planting, viz: that of the new shoots being considerably thicker and more luxuriant in growth than the old, and sometimes badly grown wood of the preceding year, from which they spring This contracted part of the old stock, will frequently check, and sometimes wholly impede, the healthy, quick growth of the vine. The new shoot from this their stock, springing from below the natural surface of the general garden; by being thus planted that depth within the trench, enables you, by filling in the trench to the level of the garden, to cover the old wood above the eye from which the new shoot has sprung, and which new shoot immediately sends forth roots and remedies the defect.

Vines already growing in pots, when used as plants, should always be planted so as to let the new wood strike roots independent of the old stock, which can generally be done without planting too deep; which must always be avoided, and easily can, by lateral or horizontal, instead of perpendicular planting; which we shall explain.

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* The Muscat has also the property of retaining its fine flavour in wine, even under change of soil and climate. The syrup and sugar made from it, cannot be wholly deprived of it by any known process; it was therefore excluded from among the other grape tribe, as unfit for sugar, when the French government, in 1808, and subsequently, encouraged grape, beet, and other sugars, as part of their exclusive system.

† This mistake is very natural, when it is observed that the public prints, in speaking of the seasons, crops, &c., always use the word "vine," as applicable to the expected *fruit*, and not the tree or plant.

‡ A new theory, as to another cause of damping off, (or having "coulé," not arising from frost or wet, has of late years been successfully introduced in France, and an instrument invented for cutting the bark in a particular way to prevent it. Of this I shall speak hereafter, if you should wish any further communications after reading this letter.

All vines when planted, should be laid, as to their roots, along the bottom of the trench or hole, (if only one is planted and a hole made,) and the roots need not be covered more than six inches deep; for the shooting eye being left, as I have directed, six inches below the common surface or level of the garden, the filling up of the trench this other six inches, after the new shoot is sufficiently grown, leaves them deep enough in the end; and as the roots seldom tap, but generally spread laterally for several years at least, and like to be within reach of the warmth of the sun, deep planting is not only unnatural, but very injurious.

(To be continued.)

AGRICULTURE.

(From the Massachusetts Agricultural Repository and Journal.)

ON THE CULTURE OF LUCERNE,

Translated and abridged from the course of Agriculture of the Abbe Rozier.

There is no branch of agriculture which has been more neglected in the state of Massachusetts than that of the cultivated grasses. Till within a few years, our farmers rarely sowed any grass seeds, but those of clover and herd's grass or timothy, as it is called in the middle states. If the farmer should say, that they are good enough for all their purposes, our reply would promptly be, how can you know that until you try others? That there are better grasses than either of them, for certain purposes, and on certain soils, we know.

The objections to red or Dutch clover, are numerous. It is apt to be winter killed, much more so than the plant we shall recommend in its place; in strong soils, it is too luxuriant; its stalks are coarse, and are rejected by all but very hungry cattle; its leaves are very apt to fall in drying, and every time the hay is removed; lastly, it lives but two years; if it did not sow itself, when left to stand till herd's grass is ripe, there would not be a trace of it the third year. These are serious objections. There are some objections to herd's grass, though smaller in degree. It is not well adapted to dry soils; it is a late grass, gives no early feed, and no after-math or after-feed to any valuable extent. We shall speak of its partial substitute hereafter—we mean the orchard grass. This grass has been the subject of discussion these thirty years, but it is only within ten or fifteen years, that its merits have been admitted, and that it has been cultivated for some purposes in preference to herd's grass. Connecticut farmers, we believe, were the first who cultivated it in New England, and John Prince, Esq., was the person who first introduced it into this vicinity. It may be now considered as having fairly overcome prejudices, and when its seeds can be easily procured and at a cheap rate, we shall see as many fields of it as of herd's grass; the latter, however, will always be preferred in low lands. It is not to us extraordinary, that it did not make its way earlier. Our farmers have a contempt for every thing new, especially if it is proffered by "book farmers." It was more than forty years after "spinach" was introduced into the gardens of the opulent, before you could buy it at Boston market, though it had been a regular and important article at Covent Garden, and in the Paris markets, for more than one hundred years. The disgrace of being so slow to receive valuable novelties, is not confined to *our* farmers and gardeners. The medical faculty of Paris proscribed as poisonous, the potato, one hundred years after that plant had raised millions of vigorous and athletic troops, who, under Marlborough, had beaten the finest armies of France! Let us delay our translation one moment more, by saying that even now the salsafy can hardly be said to be a regular marketable article; that the rhubarb was twenty years in coming into favour, and that the sea-kale, the favourite vegetable of Great Britain, cannot find one intelligent cultivator, who will tempt the Boston gentlemen with this luxury.

As orchard grass is now admitted to be worth cultivating, we may hope that lucerne, or as the French call it, luzerne, will have a fair trial as a substitute for clover. Will lucerne bear our climate? It will; it is hardier than clover. The late Mr. John Gore had a field of it at Dorchester, nearly twenty years ago; its early vigorous growth attracted notice, and it endured many years. The writer of this article received a pint of the seed of lucerne from Florence, under the name of Lupinella, by which it is known in Italy. He sowed it five years ago; not a plant has ever died. His experience enables him to state, that it starts earlier than clover, grows more rapidly. On this day, April 30, 1827, it is nine inches high, and several inches higher than clover by the side of it. It has been cut every year four times; its stalks are not so coarse or woody as those of clover; its leaves are more numerous; it is eaten greedily by cows and horses, both green and dry. Such is the experience derived from the culture of two rods square only. An half acre has now been sown with it the present year. We shall now proceed with the translation of the Abbe Rozier's article, under the head of luzerne. France has cultivated this grass for a century at least, and no man could be a better judge of it than this learned agriculturist.

(From Rozier's Course of Agriculture.)

On the soil adapted to Lucerne.

"Many authors assert that it succeeds in all sorts of soil. This assertion, as a general one, is true, but is very false as a particular one. I have often said in the course of this work, that you may lay it down as a safe rule in agriculture, that the roots of plants will show what sort of soil they require. The root of the luzerne is, (what we call,) tap rooted; has few fibres, (or small roots,) and runs directly down as soon as it finds a soil adapted to it. It is not uncommon to find plants of luzerne, whose roots are six, and sometimes even ten feet long. It is clear from this fact, which I certify to be true, that this plant would not succeed, or would grow poorly in a soil purely stony or sandy; in a strong, clayey, compact soil, or even in a vegetable soil, whose thickness does not exceed from six to twelve inches, and which rests upon a basis of gravel or clay. The roots in that case cease to run down, and at the least drought the plant suffers, languishes, and afterwards perishes. The great point is to seek a deep soil. The best soil for it, doubtless, is one that is both light and substantial. Intervale lands have the requisite qualities, rich sandy loams, and generally all lands which are situated at the foot of hills or mountains, because they are constantly enriched by the earth brought down by rains. On the quality of the soil depends the duration and beauty of the luzerne. In suitable soils, when none of the accidents, to which we shall advert, happen to it, it will last in the southern provinces of France, from ten to twenty years. Its duration diminishes in proportion as the soil is less adapted to it, and sometimes it will not last more than four or five years, or even less. In this case it is hardly worth while to sow it. except as an alternate crop, or to restore a field exhausted by over-cropping with wheat."

[Note.—Though the Abbe Rozier would seem to restrict the culture to the best soils only, yet he admits that other writers contend that it is fitted for any soils; and the land on which we have seen it flourish here, is not remarkable for its goodness; any good loam easily penetrated by its roots would suit it, but no doubt, a plant so luxurious in its growth, and with such a quantity of leaves, could not sustain drought on a gravelly or clayey soil.]

Of the choice of seed and the time of sowing.

The seed is usually gathered only from old fields of lucerne, which are about to be destroyed, and in that case you leave it to dry on the stalk, till the first frosts. As the seed vessel or pod of this plant, is in a spiral form, and opens with difficulty, the farmer is not pressed as to the time of threshing out, or harvesting the seed. In the northern parts of France, the grass should not be cut in the year in which it is intended to gather the seed; but in the south of France, you may make a crop of early hay, and the second crop will ripen its seeds [Experience has shown, that we may, in America, take a first crop of hay, and that the second growth will ripen its seeds in great abundance.] It is very important, that the seeds should be thoroughly ripe, otherwise they will not vegetate. The seeds should acquire a brown colour, or else they will come up thinly, and not cover the ground. When you judge that the seed is ripe enough, you cut it in a dry day; and leave it exposed to the heat of the sun several days running, after which it is carried under cover, in order to be thrashed on some dry day in the following winter. I have remarked, that the pods open with great difficulty, and that the seeds come out very hardly. You must not, then, be weary in thrashing it thoroughly, in winnowing it often, and in thrashing that which has been winnowed—in short, it requires patience to separate this seed; of course, the winter, as a season of leisure, is chosen for this purpose. You must take care not to throw the chaff on the dung-heap, for many seeds will still remain, and if carried out with the dung, will grow and be difficult to eradicate or destroy. Many authors maintain, that the seeds of this plant are not good for sowing after the first year, but the Abbe de Rozier's experience was to the contrary, though he thinks it safest to sow new seeds, but by no means to throw away old seeds.

Of the proper time of sowing Lucerne.

To point out a precise moment would lead to error. It depends on the climate and the season. In the south of France there are two seasons; one in the course of September, and the other at the end of February, and so on into March, and even later, even till the middle of April. The sowings in September gain one year; the next season following the sowing, you cut the lucerne like all other grasses. In that case, (of fall sowing,) the plant flowers later the first year, and you cut but one crop. [In the northern parts of the United States we cannot sow in autumn; the plants would be winter killed.] Mr. Rozier says, that in the northern parts of France, the sowing must be governed by the season, and may be done as soon as the frosts have ceased, and should not be regulated by Saint's days. We should not be in haste to take a crop, and it is prudent to take but one the first year, in order not to exhaust the plant, and especially to permit it to grow so thick, as to stifle all pernicious weeds. When the lucerne has once taken hold in a field, it demands very little care. Some recommend thin sowing, in order that the root may have room to send up many stalks. Mr. Rozier, on the other hand, advises to sow it thick, because all the seeds will not grow, and the strong plants will destroy the weaker ones; but he admits that too thick sowing is injurious. "I think (says Monsieur Rozier,) that it will succeed, if sowed with wheat, but I have never tried it." [We know that it will.—Editors.] "We cannot estimate *exactly* the quantity of grain estimated by weight which should be sown on a given space of ground; so much depends on the nature of the soil, and the time of sowing. If sown in September, it should be sown thicker, for it has to encounter ants, birds, and overflowing rains of winter. In spring it has fewer risks to encounter. [In our country, at least in New England, fall-sowing will never answer.—Editors.] You may, however, say, that upon a surface of four hundred square toises [one third of an acre,] you ought to sow something more than one-sixteenth of a hundred weight, (say seven pounds.) This would be at the rate of twenty-one pounds to the acre. If you can procure good seeds from a distant province, the plant will gain by the exchange. The planters in the north of France were for a long time persuaded, that it was absolutely necessary to procure their seed from the south, and they were right, because the plant had not then become acclimated; but at present, these distant transportations do not take place. I am inclined to think, says Rozier, that at this moment it is better to sow northern seed in the south. I repeat it, change of seed is useful in the case of lucerne, but not as much so as for wheat crops."

[We add, that in Massachusetts, the lucerne ripens its seeds as freely as clover.—Editors.]

Of the preparation of the land for Lucerne.

At whatever season you sow, the land ought to be rendered very fine by ploughing and harrowing, because all seeds buried under clods will never sprout. If you harrow after each ploughing, the labour will be less. It is not possible to prescribe the number of ploughings, because much depends on the nature of the soil. The nature of the lucerne root points out the necessity of deep ploughing. The duration and the goodness of a field of lucerne, depends in a great measure upon the success of the first year. If the seeds do not come up well, if they are sown too thin, weeds will obtain the lead over the grass. If you sow lucerne in the spring, two fall ploughings will much facilitate your deep ploughing in the spring; besides, the earth is admirably divided by the winter frosts. *Winter* is an *excellent labourer.* After the last ploughing, if the furrows are deep, you must harrow before sowing. Then sow and harrow; first, with the teeth of the harrow down, then with the flat side of the harrow, and so alternately till the seeds are well covered; and it would be well to attach a bush harrow to the harrow with teeth. [In general, these directions do not differ from our usual course in sowing clover and other grass seeds, and the same treatment which is adapted to clover, will be proper for lucerne, except that the ploughing should be as deep as possible.—Editors.]

[In our next we shall give further extracts, which treat of the care required of lucerne fields—of the different crops of lucerne in the same year, &c. &c
Ed. Am. Farmer.]

MANUFACTURE OF COTTON IN THE SOUTHERN STATES—NO. XXI.

The manufacture of Cotton by Slave labour, or the labour of coloured people.

To me, it is a pleasing circumstance, that this subject has at length gained so much consideration in the south, notwithstanding so many have so little faith in the utility of the scheme, and that many may oppose it so much.

I have no doubt in my mind, but that if the southern people turn their attention, and the labour of their coloured population, *which they can spare from the tillage of the ground*, to the manufacturing of cotton fabrics, that they will not only succeed, so far as to compete with the eastern manufacturers, but they will ultimately, (with their several extraordinary advantages, such as cheaper labour, saving in clothing and fuel, and the bagging, cordage, packing and freight,) let down the price, especially of the coarse, or common fabrics, so much as to excel; and indeed, I presume, they will produce some very neat goods of fine quality. I have no doubt but they have it in their power to let down the price of common fabrics, as much as 25 per cent., and still realize a good profit.

I think it a very mistaken opinion, that many seem to entertain, that the black population (the negroes,) are not capable of acquiring the art of tending machinery. I am quite aware, that, to take a man, or a woman, who has been brought up to field-labour, and drudgery of the roughest kind, of such manufacturers could not be made. But, take children, who have not acquired any habits of body, or training of the mind, which would disqualify them from tending machinery—bring them up in a manner suitable to the purpose, and I have no doubt but they would be adequate to any thing that would be required at their hands, in the manufacturing of cotton or woollens, &c.

As a justification of the opinions thus advanced, I have enclosed twenty sewing threads, which were spun, about eighteen years ago, by a very lusty, gross looking black woman. *She was very black*, and then the mother of nine children. She then resided in Loudoun county. Va.—has since moved, with her husband and family, to the state of Ohio. The flax, which this thread was spun of, was said to be good, *but not very extraordinary.* After it was doubled and twisted, it was bleached, or whitened, as now presented. This fabric was considered uncommon, and in consequence of that, some of it has been kept in our family ever since.

If the sample sent is worth the attention, perhaps it might serve the cause, by forwarding a thread or two to some of the southern gentlemen, as an antidote to their scepticism[*] and to others as a confirmation of their more liberal views.

In the course of my observations, I have noticed many instances, *among the African race*, of much mechanical skill, and some of whom are very good workmen. But what can be expected of a man who does not know one letter or figure from another, and is hardly ever suffered to touch a tool, save an axe or a hoe.

Agriculture, Manufactures and Commerce.
3d mo., 22d, 1828.

BAGGING FROM COTTON.

In the examination of testimony before the committee of Congress, on manufactures, some facts were elicited of importance to the planters of the south. Among other persons examined, was a Mr. *Marshall*, a very extensive manufacturer in New York, and originally from Manchester, England, where he was largely engaged in the cotton line, both as a manufacturer and purchaser. On the subject of manufacturing bagging from cotton, the examination proceeded as follows:

Question.—Does your acquaintance with the importation and manufacture of cotton in Great Britain, enable you to form an opinion whether cotton can be packed in bagging made of cotton, and transported to that country in good order?

Answer.—I have been extensively engaged in the purchase of cotton and in its manufacture, and am well satisfied that cotton packed in bags made of cotton, can be transported to England in as good order, as that put up in hemp or flax bagging, and when well put up, it will command more in the market, particularly if in square bales. One reason for the difference in the price is, that the bag can be applied to a valuable purpose. Another reason is, four pounds in the hundred weight for tare, and as cotton weighs less than hemp, the purchaser will give the preference to that packed in cotton.

Question.—Do manufacturers or purchasers of cotton in England, find the bag made of cotton of more value after the cotton is used, than that made of hemp or flax? And if so, to what purpose is it applied?

Answer.—They do find the cotton bag of more value, because it is again worked up into coarse cotton, and sold for half price: it is considered too valuable to work into paper, to which latter purpose the hemp bag is usually applied.

Question.—Is it likely that large quantities of bagging would be manufactured from cotton in England, and imported, if it was admitted into this country free of, or at a small duty; and this would increase, to greater extent, the consumption of the raw material?

Answer.—It would not be likely to increase the consumption in England, because the profit would not be likely to pay for the labour bestowed upon it. I am of opinion, however, that it might be manufactured in the United States to great advantage; and if this be done to any great extent, it would necessarily lead to a great consumption. I have heretofore contemplated, and have not yet abandoned establishing a factory for that purpose. I have thought we could make it as good as could be wished, forty-two inches wide, and sell it at fourteen cents.

CIRCULAR.

To the President and Members of the Agricultural Society of ———.

Gentlemen, *Edisto Island, March* 11, 1828.

From the relation in which I stand to the United Agricultural Society of South Carolina, it becomes my duty to investigate and point out the means whereby the interest of that association may be advanced. To accomplish the legitimate design of its establishment, requires an unanimity of action on the part of its immediate supporters, aided by the moral power of public opinion. Insulated efforts, whether in reference to individuals or societies, are well calculated to excite inquiry, but can scarcely effect that fundamental change which it would seem is now necessary to be accomplished, before the husbandry of South Carolina can be placed on that elevated station to which it aspires. Relying, gentlemen, on your zeal and intelligence in the cause of our common vocation, permit me respectfully to solicit answers as early as your convenience will permit, to the following queries:

1. What do you consider to be the prominent evils under which our agriculture labours, and what their remedies?

2. Would it redound to the prosperity of the State to establish a professorship of Agriculture in the South Carolina College?

3. Ought the Legislature to encourage the agricultural interest by the appropriation of money? If so, how, and to attain what specific objects should the money be expended?

The responsibility of my situation; an ardent desire to use my best efforts in promoting the agricultural weal of the state; the obvious propriety of ascertaining the opinion of our yeomanry on several topics of great moment; and the necessity of asking the patronage of the Legislature, at its en-

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[* As far as we know, the southern people do not believe that blacks are incapable of learning to perform, with advantage, all the labours of operatives in manufactories. That impression is entertained rather by persons in other parts of the country, who have had less opportunity of observing their natural capacities and ingenuity. Skilful superintendants, (to serve until southern people, better acquainted with the management of slave-labour, can learn the art,) may be had in the eastern states. The difficulty consists not in that, nor in the want of water-power, &c.—the pinch lies in the *want of money* to build the factories, buy machinery, &c. Where is *that* to be had? Will the rich capitalists of the east loan money on the factories?]

suing session, in favour of the society over which I have the honour to preside, are the motives which have dictated this communication.

Respectfully, your obedient servant,
WHITEMARSH B. SEABROOK,
President U. A. Soc. of S. C.

LONG WOOL.

The British Society for the encouragement of arts, manufactures, and commerce, have awarded a premium to Charles Callis Western, Esq. M. P. for a specimen of long and fine Anglo-Merino wool.

In a communication to the Society, Mr. Western thus describes a sample of this wool: "The wool will be of *three years' growth* next clipping time; I took it off this morning from the backs of two wether sheep. I drew it from the skin with quite as much difficulty as if it had only been of one year's growth, and with as much pain to the animals. You will observe the strength and elasticity of the wool, and the impossibility of discovering any difference in each successive year's growth. I estimate the weight of one fleece at 25 lbs., the other at 28 or 30 lbs. in the grease.

"The food of the sheep has been, according to the season, tares and clover, green grass, hay, turnips, mangel wurtzel and oats. Weight of the sheep alive—one 239; another, 244 lbs. Dead, one 158 lbs.; the other 149 lbs.

"I am more and more convinced I am right in the object at which I aim, that of growing long, fine strong Merino wool for combing. I am satisfied it is practicable, that the farmer who applies his attention and skill to this object, will find an adequate return in the sale of wool and mutton."

Mr. Western says in a subsequent communication: "The principal object that I had in view was, to make known the curious fact, that the animal (the Anglo-Merino sheep,) will carry its fleece in all its strength and beauty, three years. I have produced the article such as was never seen or contemplated before, most people supposing that sheep shed their fleece every year. I do not propose the wool should be more than two years growth, which would require one year's cutting. The sheep should be wethers, and put up at about sixteen or eighteen months old."—*Transactions of the Society for the Encouragement of Arts, &c. v.* 45, *p.* 36, (1827.)

AGRICULTURAL DISTRESS.

Mr. Skinner,

Sir,—Your reference to the embarrassments of the whole agricultural community of the United States, in the last number of the American Farmer, must be read with peculiar interest by every reflecting individual of that great and most useful class of our fellow citizens.

Though they never complain, their sufferings are not, therefore, less severe, and have now reached that extreme point, which you justly designate as the preliminary to improvement, namely, deliberation.

To bring together the intellectual strength of the agricultural community of the union, at least such a concentration of it as would express what are supposed to be the causes, and the remedies of the evils alluded to, would not be a difficult task.

A convention might be invited to meet at some central or convenient point, during the ensuing summer or autumn, when the southern planters make their annual visits to the middle and northern states; and then might be discussed those general points of interest, on which all planters and farmers unite, as being the proprietors and cultivators of the soil; and preferring this character and pursuit, (I would call it a profession,) to any other, to which necessity must drive them, unless some improvements can be suggested for their benefit.

One of the most prominent points in your appeal, and as you justly observe, the most painful, is, the expense of a good education for their children, which is at present generally beyond the means of a farmer; and, indeed, is not to be obtained in the United States at any expense: that is, such an education as is alone appropriate to a planter or farmer, and which, it is believed by the writer of these suggestions, must be commenced in very early life, conducted in youth, and concluded *in the country, in agricultural institutes*, where, what may be called the rural arts and sciences, are the foundation, and what may be termed the agrémens of life, are the superstructure—a system, which, in the United States, has been reversed. The moral principles of agriculture are almost unknown to us, in their due degree and exercise.

Industry, sobriety, economy, subordination, system and discipline, and their associated virtues and habits, are not sufficiently insisted on in youth; and, indeed, are not known in any plan, uniting in the country an agricultural with a scientific education, in connection with a farm conducted on the best principles.

Yet, such a plan of education exists in Switzerland, where the illustrious Fellenberg, by the experience of more than twenty years, has demonstrated its practical and extensive utility; and has illustrated, by the example of many living witnesses, educated in his institution, the important truth, that the produce of each individual's labour only, (even in a country where its price is much less than in the United States,) will, in such a seminary, provide all the means of subsistence and instruction in every department of science useful to such individual as a farmer; united, at the same time, to an early formation of all the habits of life essential to successful agriculture.

City education, and city habits, are conceived to be at the root of the evils of American agriculture. There must be a moral atmosphere for the farmer to live and move in, which he must have inhaled with his earliest breath, when the mind receives its first and best, as well as its most enduring impressions and associations—to secure, and to direct which to their appropriate objects, is one of the most essential parts of a good education.

But this remedy may be said only to apply to succeeding generations; it will, at least, remedy also one of the most obvious causes of regret to the parents of the present, that no appropriate system of education in the country is within their reach; should it happily lead to a consideration of the subject, and an adoption of the remedy proposed, by the establishment of an agricultural institute, on the Fellenberg plan, in some one of our states, such as was intended to have been commenced this spring in Pennsylvania, under the superintendence of a distinguished scientific citizen of our country, who had resided at Hofwyl a sufficient time on purpose to possess himself of all the essential parts and practices of that celebrated institution, but whose greatly regretted loss of health, as I am lately informed, precluding any present hopes of his assistance, and involves, in its consequences, a postponement at least of the institute intended at Bolton farm, in Pennsylvania, under his expected superintendence.

The subject, considered as a national object, has been submitted by me to the committees on agriculture of the Senate and House of Representatives of the United States at the present session of Congress, with the view only to an expression of opinion by the gentlemen composing those committees, of the utility of such a system to the agricultural interests; its sanction by the most enlightened statesmen of Europe, leads me to anticipate the same result from those of our own country.

The sentiments expressed in the Georgia Journal by the Planters convened at Eatonton, are at once the evidence of the existence of the evils, and the proof that they are not without a remedy, if the dangers of delay are not added to the nature of the disorder The invitation to communications for the Farmer, has induced the suggestion of a Convention, by selection from the Agricultural societies in the several states, or otherwise, that it may receive the consideration which the subject merits; and, if approved, be made more definite as to time, place, numbers, &c.

A. M.

HORTICULTURE.

KITCHEN GARDEN—MAY.

The grand business of this month is, to sow and plant several successive crops of plants, that are of short duration, and others of a more durable state. Weed, hoe, and thin the different main crops, according as they require it, and water the various new planted crops, and others in seed-beds, hot-beds, &c. many articles, however require now to be sowed and planted, and pricked out for summer, autumn, and winter service.

The principal sowing this month in hot-beds is for cucumbers, melons, and a few gourds and pompions.

In the natural ground, planting is necessary for the cabbages, coleworts, savoys, borecole, brocoli, celery, endive, lettuce, beans, kidney-beans, cauliflowers, capsicum, basil, late potatoes, and radishes for seed.

Keep your asparagus clear from weeds, both in the old beds and those planted this spring, as well as in the seed-beds. The old asparagus beds will now be in full production for the season, and the beds or shoots should be gathered two or three times a week, or according as they advance in growth, from two or three to five or six inches high, cutting them with a long narrow knife, about three inches within the ground.

Top your early beans that are in the blossom; also the succeeding crops as they come with flower, to make the pods set soon and fine.

Plant out some early spring-raised plants of brocoli, at two feet distance. Prick out young ones, and sow a good crop to plant out for winter and spring. Leave some of the best old plants for seed.

Hoe between your cabbages, cut up all the weeds, loosen the ground a moderate depth, and draw earth about the stems of the plants. The early cabbages, which are forwardest in growth, and fullest hearts, must have their leaves tied together with an osier twig, or brass, to promote or hasten their cabbaging, and to render them white and tender. Likewise plant out some stout, spring-raised red cabbage plants, for autumn and winter supply.

Thin your carrots, and cleanse them from weeds, either by hand-weeding, or small hoeing, leaving those intended to draw young in summer, four or five inches apart, but the main crops must be thinned six or eight inches. Likewise hoe between your cauliflowers, and draw the earth to their stems. As also between rows of beans, peas, kidney-beans, and all other plants in rows.

Thin the spring-sowed crops of lettuces, and plant out proper supplies of the different sorts a foot distance. Tie up early cos-lettuces to forward their cabbaging.

Weed the general spring-sowed crops of onions, and thin the plants where too thick. Leave some of the bulbous kind of winter onions at proper distance for early bulbing next month.

Continue sowing once a fortnight marrowfats, and other large kinds of peas; also some of the best hotspurs, or other sorts approved of, to furnish a regular succession of the different sorts. You may likewise continue to sow radishes in open situations, once a week or fortnight, in moderate quantities, for successional crops this and the following month.

Those of former sowings in the last month, where come up thick, most be thinned.

Sow salladiug of the different sorts, as lettuce, cresses, mustard, radish, rape, and purslane, to have a proper succession to cut while young.

Plant out some of the strongest early savoy plants, in an open situation, two feet and a half asunder, for autumn, &c.

If a constant succession is required, continue to sow some round-leaved spinach in open situations.

Watering will now be frequently required to most new-planted crops, both at planting, and occasionally afterwards in dry weather, till they take root; likewise seed-beds of small crops lately sowed, or the plants young, in very dry weather. Your weeding must be very diligently attended to both by hand and hoe; for as weeds will be advancing numerously among all crops, it becomes a principal business to eradicate them before they spread too far, otherwise they will impede the growth of the plants.

APRICOT, NECTARINE, AND PLUM.

Dear Sir, *April* 13, 1828.

The apricot, nectarine, and plum, more frequently disappoint the cultivator, than any other of our choice fruits. My own success has been limited to grounds well paved, and by steady attention to collect and *immediately burn* the fallen fruit. My plum trees, thus planted, and thus carefully attended to, never fail to give abundance of fine fruit. But I am without a command of bricks, and with none but round stones, I cannot make a close pavement; and yet I am desirous to increase my varieties of these delicious fruits. At this time our enemy (the *circulio*,) is in the earth, and he will ascend to the tree, and begin his ravages as soon as the fruit is uncovered from the blossom.

I intend to make the experiment of covering the ground around the trees with straw, or hay, to a considerable depth, well treading it down, in the hope that a mat of these materials will prevent the *circulio* from rising through it to attack the fruit. To succeed in the experiment, the work should be immediately performed. It will be gratifying to know the result of the experiment.

Your obed't serv't, F.

MANURE FOR VINES.

The best manure for vines, is a mixture of vegetable mould, rotten spit dung, and fresh loam, (turf and all;) this should be thrown into an heap, and frequently turned, for a year or two before it is used. [*Forsyth.*

INTERNAL IMPROVEMENT.

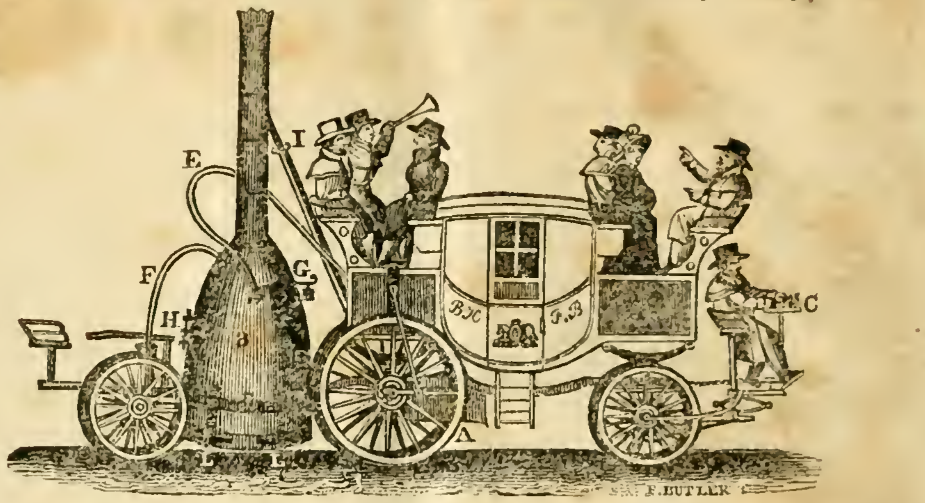
MR. GURNEY'S STEAM CARRIAGE.

A skilful workman, named Williams, from Bolton & Watt's, of the Soho Manufactory, Birmingham, inspected this machine a few days ago, and stated it as his firm conviction, that with a few judicious alterations, it could not fail to answer the most sanguine expectations entertained of it. On Monday it was again tried in the Regent's Park, and proceeded at the rate of thirteen miles and a quarter per hour. Hitherto considerable difficulty has been experienced in guiding the machine over the rough stones; to obviate this difficulty, an improvement of a very simple nature has been suggested by Williams, which will give the guide such a purchase over the machine, that it may be steered with as much ease and precision as a steam vessel at sea.

A gentleman of Somerset has contracted with Mr. Gurney for three of his steam carriages, to run on each of the lines of road from London to Exeter, as soon as the machinery shall be brought into safe operation. [*Eng. paper.*

BURSTALL & HILL'S PATENT STEAM CARRIAGE MODEL,

Exhibited at work in the large room, Golden Lion, Dale street, London, on Friday, January 25, 1828.



A, Water Cistern—B, the Boiler—C, Steering Wheel with the Conductor—D, Steel Frame which carries the Boiler—E, the Curved Steam Pipe to supply the Engines—F, Hand Pump and Pipe to fill the Boiler—G, Safety Valve—H, Notice Cocks—I, Eduction Pipe to take the Steam from the Engine to Chimney—K, the Crank—L, Pan for the Cinders.

The Model is constructed on a scale of 3 inches to the foot, is 5 feet 6 inches long, 16 inches over the wheels, and 1 foot 10 inches high, the middle or propelling wheels being 13 inches in diameter.

The full size carriage will be about one foot longer than a two-horse stage coach and horses, seven feet four inches high to the roof, the wheels being the common breadth apart. It will be retarded or stopped in running down hill by a powerful Lever and Friction Break, which acts on the two fore wheels, within reach of the Conductor, at the same time, by a crank and rod; the Throttle valve is closed, which shuts off the steam; the engineer behind can likewise at pleasure stop the engine.

This machine, with all its wheels smooth, and without either propellers, or any other adhesion on the ground except the natural friction of the iron against the road, carries with ease and rapidity, up an ascent of one in eighteen, a weight equal to forty passengers upon a common stage coach; demonstrating that, on *this plan*, stage coaches may be propelled with *safety, economy, and speed*, not to be attained with horse coaches, and capable of making the present common roads of the country fully as economical as rail-roads, except in situations of extraordinary traffic.

From the construction of the boiler, and fuel used, neither smoke nor steam issues from the chimney, and many ladies have viewed the carriage at work with great interest, without danger or annoyance.

LADIES' DEPARTMENT.

Verses addressed to a little girl named Margaret, whom the author met at Scarborough.

BY JAMES MONTGOMERY.

Margaret, we never met before,
And Margaret, we may meet no more!
What shall I say at parting?
Scarce half a moon has run its race,
Since first I saw your fairy face,
Around this gay and giddy place,
Sweet smiles and blushes darting;
Yet from my heart I freely tell,
I cannot help but wish you well.

I dare not wish you stores of wealth,
A troop of friends, unfailing health,
And freedom from affliction!
I dare not wish you beauty's prize!
Carnation lips and bright blue eyes!
They speak thro' tears, and breathe thro' sighs!
Then hear my benediction:
Of those good things be thou possest,
Just in the measure GOD thinks best.

But, little Margaret, may you be,
All that His eye delights to see,
All that He loves and blesses;
The Lord in darkness be your light,
Your strength in sickness, shield in fight,
Your comfort in distresses;
The hope of every future breath,
And your eternal joy in death!

(From Mrs. Holland's Domestic Cookery.)

TO DRESS POULTRY.

To make Mushroom Sauce for White Fowls of all Sorts.

Take a quart of fresh mushrooms, well cleaned and washed, cut them in two, put them in a stew-pan, with a little butter, a blade of mace, and a little salt; stew it gently for an hour, then add a pint of cream, and the yolks of two eggs beat very well, and keep stirring it till it boils up; then squeeze half a lemon, put it over the fowls, or turkeys, or in basons, or in a dish, with a piece of French bread first buttered, then toasted brown, and just dip it in boiling water; put it in the dish, and the mushrooms over.

To make Celery Sauce, either for roasted or boiled Fowls, Turkeys, Partridges, or any other Game.

Take a large bunch of celery, wash and pare it clean, cut it in little thin bits, and boil it softly in a little water till it is tender; then add a little beaten mace, nutmeg, pepper, and salt, thickened with a piece of butter rolled in flour; then boil it up, and pour it in a dish.

You may make it with cream thus: boil celery as above, and add mace, nutmeg, a piece of butter as big as a walnut rolled in flour, and a half a pint of cream; boil all together.

To make Egg Sauce proper for roasted Chickens.

Melt butter thick and fine, chop two or three hard boiled eggs fine, put them in a bason, pour the butter over them, and have good gravy in the dish.

SPORTING OLIO.

RICHMOND RACES,

Over the Tree Hill Course—Spring Meeting, 1828.

Will commence as usual on the second Tuesday in May, 13th, and continue five days.

1st Day.—Two sweepstakes for colts and fillies, 3 years old, mile heats; entrance to first, (a produce stake,) $100, half forfeit. Subscribers: 1. R. M Cunningham, enters the produce of Bet Bounce, by Virginian; 2 John F. Cocke, enters the produce of Buzzard, by Sir Charles; 3 John B. Christian enters the produce of Susan, by Sir Alfred; 4. James M. Selden enters the produce of Lady Tolman, by Sir Archie; 5. Wm. R. Johnson enters the produce of Reality, by Sir Charles; 6. James J. Harrison enters the produce of Favourite by Virginian.

Second Race, same day—A post stake, mile heats, entrance $200, half forfeit. Subscribers: 1 Wm. R. Johnson; 2 James J Harrison; 3. Wm. Wynne; 4. George B Garrison, (dead;) 5. Chas. C. Graves.

2d Day's Race—Proprietor's Purse, 2 mile heats, $300; entrance $15.

3d Day's Race.—Jockey Club Purse, 4 mile heats, $1000; entrance $20

4th Day's Race—Post stake, a single heat, 4 miles out $450; entrance $50. Subscribers, William R Johnson; James J. Harrison; John Minge; James M Selden, (still open.)

5th Day's Race.—Gate money for the benefit of John Syme. A sweepstakes for all ages, mile heats, best 3 in 5; entrance $25; open until 5 o'clock the evening preceding the race.

The proprietor feels justified in remarking, that from the number of fine horses now in training, among them Sally Walker, Ariel, Betsy Ransom, Sally Hope, Medley, Red Murdock, Trumpator, Niger, &c., together with the number of fine colts that will make their first appearance this spring, the sport cannot fail to be interesting.

Thorough-bred Horses—For Sale.

To be sold, at private sale, the entire stock of thorough-bred horses, belonging to the estate of the late Dr. William Thornton, of this city, consisting of the following:

The celebrated horses Rattler, Marylander, Southern Eclipse, Richmond, Young Rattler, Don Juan, Diomed,* &c. Also, the very valuable mares, the Dutchess of Marlboro' and Louisa Semmes.† The former has a fine colt by her side, by Rattler. Besides many other full-blood Mares, Colts and Fillies, of various ages. All the above stock has been selected with care and attention, and is believed to consist of as fine a train for the turf, as can be found in this or any other country. Many of them have attained a degree of celebrity, too well known and established to require farther comment.

The terms of sale are: one-fourth cash, the balance on a credit of six, twelve and eighteen months, for notes satisfactorily endorsed, bearing interest. The pedigrees and further particulars, may be obtained on application to Richard Forrest, city of Washington.

Bids are also invited from gentlemen holding stock or shares, for the interest which Dr. Thornton held thereon. [*Washington City, April* 19, 1828.

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*This horse is at present in the state of Kentucky, in charge of Isham Talbot, Esq., of Frankfort.

†N. B One half only of this mare belongs to the above estate, but the owner of the other half will unite in a sale of her on fair terms.

(From the London Sporting Magazine, for Feb. 1828.)

GAME.

[The following is a list given by a game-keeper in England, of the game killed by him for his employer during the time mentioned:]

	Pheasants.	Partridges	Hares	Rabbits.	Woodcocks.	Wild Fowl.
From Sept. 1, 1819, to March, 1820.	3	228	58	63	32	49
From do. 1820, to do. 1821.	2	258	92	210	38	21
From do. 1821, to do. 1822.	69	385	172	1080	109	21
From do. 1822, to do. 1823.	198	359	925	724	52	45
From do. 1823, to do. 1824.	289	479	888	380	38	15
From do. 1824, to do. 1825.	867	536	505	357	58	17
From do. 1825, to do. 1826.	842	577	458	853	53	46
From do. 1826, to do. 1827.	616	531	992	841	43	26
From do. 1827, to Oct 21, 1827.	218	494	181	808	1	—

And ten Otters last year.

This list shows that game may be very soon increased by proper care and attention, allowing at the same time a liberal supply to the proprietor, and likewise to the sporting friends of the proprietor, and others who have had permission to sport, which, of course, are not included in the above list

MISCELLANEOUS.

PATENTS.

The following table will exhibit the States whose citizens have been most prolific in Inventions, during the year 1827, as registered in the Patent Office of the United States.

	Number of Patents.
Maine,	17
New Hampshire,	3
Vermont,	10
Massachusetts,	38
Rhode Island,	5
Connecticut,	16
New York,	103
New Jersey,	6
Pennsylvania,	33
Delaware,	2
Maryland,	16
District of Columbia,	4
Virginia,	15
North Carolina,	24
South Carolina,	3
Georgia,	1
Alabama,	1
Ohio,	15
Tennessee,	4
Kentucky,	1
Indiana,	3
	320

RECIPES.

(From the London Literary Gazette.)

PRESERVING EGGS.

From a Correspondent.—Perhaps you were not aware when you inserted the notice of some experiments in keeping eggs, that thousands are preserved yearly, or, as it is technically called, pickled, by pastry cooks, &c. The principle upon which they are pickled is, to slack some lime a few days before it is wanted, and when there is no heat left in it, it is fit for use; then put alternate layers of the lime and eggs into a tub, or any thing else, till full; the eggs not to touch one another, a little water should be kept on the top, to prevent the lime from becoming too hard. H.

FAMILY OINTMENT.

The following simple recipe is said to produce an excellent ointment for chopped hands, burns, and other sores—Take a piece of marrow about the size of a small orange, put it beside the fire in a small gallipot; when it is sufficiently melted, strain off the oil, to which add three tea-spoonsful of whiskey or other spirits; beat up the mixture until it is cold, when it is ready for use.

THE FARMER.

Baltimore, Friday, April 25, 1828.

☞Whilst many of our good friends are sending in, according to the terms of this paper, their subscription *in advance*, many others, no less friendly, in disposition, forget to send what is due for the *past*. To all such we tender the sincere assurance, that to send what they owe, by an early mail at our risk, will at this time lay us under particular obligations.

The Trustees of the Maryland Agricultural Society, will hold their next meeting at the city residence of *Samuel W. Smith, Esq.*, on Thursday next, the first of May, at one o'clock, p. m.

☞The model of an improved bee-hive, as described in No. 4, page 29, of this volume, is now in the office of the American Farmer, for the inspection of any one. It corresponds with the description, with the addition described in the following postscript to a memorandum subsequently received from the writer.

P. S. The bottom which is made to the hive, as well as the iron spikes on which the hive is placed, are not noticed in the former directions, and were added at the suggestion of a friend, who has paid considerable attention to the subject, and are intended to guard against the attacks of a worm which has been very destructive to the hives in this part of Virginia.

☞At the instance of a respected subscriber and correspondent in New Jersey, we request of some gentleman, familiar with its construction and operation, a more particular description of Farnham's *cider mill*, briefly noticed in the third number of this volume.

☞For a friend in South Carolina, the Editor will be much obliged to any one for a plant, or some of the leaves of the *Liverwort*.

☞The Tariff bill has, after seven weeks discussion passed the House of Representatives by a vote of 105 to 94, and has had a second reading in the Senate. Congress is expected to adjourn about the last of May. The Tariff bill, as it has passed, will, perhaps, be given in the next Farmer.

☞In a practical view, there can be to our readers nothing more acceptable than a correct statement of the *prices* at which their staple commodities are actually selling at the time being; and the measures taken by us for procuring this information are such as to justify the utmost reliance on its accuracy. No misapprehension can arise, except what may result from the natural dependence of price upon *quality*, and the difficulty of stating the latter with entire precision, and so as to be exactly understood. In the case of *tobacco*, for instance, every planter can understand the difficulty of defining the nice differences of *shade* and *condition*, by which the price is liable to be affected. So with *wheat*, as to its soundness, plumpness, colour and freedom from garlic, cockle dust, and offal of various kinds—but our statements will be so particular, and localities as to its growth, so often given, as to afford to the planter and farmer the best possible guide that the nature of the case will admit of—allowance being made for changes of circumstances which must control every market—as variable as the winds themselves.

For an example of the influence of circumstances where there is no want of competition, nor any possibility of combination or monopoly, take the case of CORN at present.

The ship Philip Tabb has been loading here principally with corn for Liverpool, taking about 15,000 bushels. This had the effect of raising the price so that the highest sales were made at 41 cents; that demand being satisfied, the article is now (Wednesday) dull again, and the arrival of any considerable quantity would depress it to 35 cents. It may now be set down at 38, actual sales for best white; mixed white and yellow, dull sales at 36 and 37. The last sales at Charleston were 39—at Providence and eastern ports 42, and the shipments of corn from this port being chiefly *coastwise*, there is no demand at present, we are sorry to say, to justify the hope of its bringing better prices. Where corn is *mixed* it does not sell so well as either kind would alone; the white and yellow should be cultivated and kept separately, being suited to different markets. The unmixed yellow for the West Indies particularly.

Wheat—the last sales of prime red, from the Susquehanna, 92 cents; for Virginia red wheat of good quality, 87 cents is a fair quotation; barley from Virginia, 60 to 65; rye 40 to 43; beans, best white, $1 per bushel; black-eyed peas, 50 to 62½ cents; ginseng, 20 cents per pound; beeswax, 25; snake root, 20; feathers, 28; whiskey, in barrels, from the wagons, barrel included, 24 cents per gallon; apple brandy, 25.

Tobacco, from the Rappahannock, Virginia, from common to the best quality, $2 to $3.50 per hundred; James River, of all qualities, from 2.50 to $8; Maryland tobacco may, in general, say Prince George's crops, be set down at from $2 to 2.50, and from that to $3 to 3.50. It may be added, as the opinion of a gentleman, who is conversant with the subject, and certainly not interested or inclined to disparage the article, that the seven hundred hogsheads already inspected at Queen Anne's, would not now average more than $2.50. These are gloomy accounts, and nobody can regret them more than we do; but the truth must be told, though the heavens fall. Hence lands, in the lower counties, have fallen at least 60 per ct., and other things in like proportion, except when sold on *credit*, and *that*, we are sorry to say, has a magical influence on the value of things. Expose to sale for *cash*, at an auction in the country, a cow or a horse, and they will not bring, the one six, nor the other twenty dollars; but let the auctioneer pronounce the magical words "on a credit of six months," and the old cow sheds her coat, frisks her tail, the wrinkles vanish from her horns, her udder enlarges, she abounds in signs of a good milker, and whether with calf or not, she suddenly swells into the value of eighteen dollars, and the horse to sixty dollars. A bladder in a state of exhaustion, or inflated, is not more different than the value of things thus sold for the *money*, or on a few months *credit*, at the end of which, money will in fact, perhaps, be scarcer than now! Let us friends, remember the sound warning of Poor Richard to the people, at one of these "six months' credit" sales.

"*Creditors have better memories than debtors; creditors are a superstitious sect, great observers of set days and times.*"

But we took our pen to note the *prices* of things, and here we are scribbling a homily in favour of economy and keeping out of debt. Well! perhaps worse homilies have been preached by better men.

☞To the Baltimore Victuallers.—*Show Cattle.* There are two cattle, *twins*, on the meadows of Mr. Matthew Keasby; at Salem, New Jersey, that we should like to see brought to Baltimore, by one of our enterprising young victuallers, for the gratification both of the *eye* and the *tooth*. We had much pleasure in viewing them last summer, and hazard nothing in saying, that such cattle have been very rarely seen in any market. Those, fine as they were, which were recently exhibited here, were not comparable with Mr. Keasby's. They have been finishing off during the winter, have fed well, and the opinion is, that they are as fat as any pair of cattle ever fed in this country—equal to Mr. Tyler's celebrated heifers, and exceeding them in weight. Good judges estimate them to weigh 2800. The steer 1500, and the heifer 1300. She being a *free martin*, will be a great treat to epicures. At all events, victuallers would be gratified in paying them a visit; and here we will add, that such a visit is most easily made by the Salem steam boat, which would take them from New Castle, or Delaware City, at the debouche of the canal, on its way from Philadelphia to Salem, every Tuesday, Thursday, and Saturday, and return at 9 o'clock the next morning. A trip to Salem by this conveyance, would make them acquainted with as rich a district of meadow land, as fat stock, and, we will add, as clever people, as is to be found any where in the Union. The whole distance to drive stock by land to this market would be but 16 or 18 miles; and there is no reason why the products of that very rich settlement should not come to Baltimore, as well as to the Philadelphia market. It is, we repeat, worth attending to.

☞Wanted, for record in the American Farmer, the pedigrees of Dion, (imported,) and of Figure.

☞The river at Wheeling, on the 19th inst. was sixteen feet above low water mark.

Extract from Washington.

20th April, 1828.

☞I have recently seen a vegetable in our market, called the *White Cauliflower Brocoli*, which, I am told, stands the winter well, and is nearly equal to the real Cauliflower, and by no means so difficult to raise.

☞John Hancock—The horse alluded to in the American Farmer of the 4th instant, from the stud of the Hon. John Randolph, and said by him to be "one of the most powerful and superb animals in the world," has arrived at Washington on his way to stand in the neighbourhood of Baltimore, if sufficient encouragement be offered, or he will be sold to a company of gentlemen, if one can be made up to purchase him. He will stand at $10 *cash* or $15 if not paid before the first of August. Persons wishing to send mares, or to take a share of the horse, will please leave their names at the office of the American Farmer before the 1st of May.

☞There has been no arrival from Europe since our last, to affect the prices of country produce, or to settle the question of peace or war, between the Turks and the Allies.

Letters from Havre to the 28th February, (the latest,) received by the Golconda, at Savannah, speak strongly of a war, and advise against shipments in French vessels, unless insured against every risk, not excepting piracy.

IMPLEMENTS OF HUSBANDRY.

The subscriber would inform his friends and the public generally, that he will be supplied this season with Little's celebrated Grain Cradles, from Pennsylvania, which will be warranted equal to any in use. Also, on hand, Corn and Tobacco Cultivators, of superior quality; Davis' patent Ploughs: Swingletrees; Cornshellers; Washing Machines; Caststeel Axes; Picks; Grubbing Hoes; Mattocks; Hay Knives; Spades and Shovels; Grass Scythes. Likewise, as usual, his Cylindrical Straw Cutters, and Brown's Vertical Wool Spinners—all of which will be sold at reasonable prices for cash.

All communications by mail (*post paid*,) will be promptly attended to. JONATHAN S. EASTMAN,
No. 36 Pratt-st., Baltimore.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6 00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3 50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

Sales of Maryland Tobacco this week have been very limited. The crop that has come in this year, is of a very common quality, owing, as is supposed, to the dampness of the winter. Several small lots have been sold at prices from $2 to $3½.

Flour—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.62½ *a* 4.75; city mills, 4.50; Susquehanna, 4.25 *a* 4 37½—Corn Meal, bbl. 2.50—Grain, best red wheat .90 *a* .95—best wt. wheat 1.00 *a* 1.05—ord. to good, .80 *a* .90--Corn, .37 *a* .40 , in demand—Rye, .42 *a* .44—Oats, 21 *a* .23—Beans, .80 *a* 1.00—Peas, .55 *a* .60—Clover seed, 3.50 *a* 4.00—Timothy, 2.25 *a* 2.50—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 per lb —Barley, .80—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, .22—in bls. 24—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 00 *a* 7.00; do. trimmed, 7.00 *a* 7 50—Herrings, No. 1, bbl. 2.87½ *a* 3.25; No. 2, 2.75—Mackerel, No. 1, 5.62½; No. 2, 5.37½; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

A cargo of white Corn, 1040 bushels, fair quality, from Wye, the crop of Capt V. Bryan, of Queen Anne's county, Maryland, was sold on the 22d inst. at 39 cts.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

TOBACCO.

Extracts from a Circular of B. J. Harris, commission merchant at New Orleans, to the Tobacco Planters of Kentucky, Tennessee, Missouri, and the Western States generally—with notes by the Editor of the American Farmer.

As you inhabit countries and cultivate lands, where the climate and soil are as congenial to the production of tobacco, as any part of the United States, and competent to make the same kinds, and of as good and valuable qualities, as ever were made in Virginia, I beg leave to submit to your consideration, the causes why your best crops have not commanded as high prices here or in Europe, as the best Virginia crops.

I will candidly premise, that I think much may be attributed to partiality for the one, and prejudice against the other; but much more is owing to the western neglect, and bad management. The small number of your fine crops, does not command sufficient competition here, nor is your state improvement extensive enough as yet to remove prejudices here or abroad, which must be eradicated by degrees, after making a greater quantity of fine to act upon for several years, in the way of competition.

The good and neat management of Virginia, (if adopted in the western states,) would, in a few years, enlist the partiality of most of the tobacco merchants, in place of prejudice, in favour of the western states.

As the want of good management is the chief cause of the present difference in price between Virginia and western tobacco, and the first step towards reformation and improvement is, to be convinced of error, may I be permitted to point out those which have come within my knowledge, and suggest such remedies and amendments as have discovered from experience and observation.

Topping.

One of the [illegible] errors in the culture of tobacco in the western states, has been that of permitting it to grow too fast, too large and coarse, and ripen too soon; which caused it to be too thin, spongy and wanting in substance, *stamina* texture, and fine flavour. The over-quick, rapid growth, and ripening too early, is the result of your lively, active and very rich soil, and kind mild climate upon too *few leaves* left at topping; an error still remaining in Virginia.

The remedy to produce about an equal quantity, and much better quality, will be found in topping and priming higher and turning out more leaves; the number should be in proportion to the activity and fertility of the land; say 15 or 16 leaves where you are in the habit of leaving 12. This will cause the leaves to be smaller, and of finer, richer and better texture: because, the higher it is topped in reason, the slower and longer time it will be growing; and although the leaves will be smaller, you will make about the same weight, as the number will be greater, and the leaves thus elevated from the ground, by high topping and high priming, will cause them to be cleaner—the leaves will be richer, because they will be longer growing, and receive more benefit from the sun, in consequence of being smaller, and shading each other less than when larger. When topped high, the leaves branch off from the stalk further apart,[*] which is another cause why they get more benefit from the sun, so necessary to the enriching and perfecting of all vegetation.

Cutting.

Very great errors have often been committed in cutting before it got entirely and perfectly ripe. The loss is great from this cause. Only a few days premature cutting, will lessen the value 25 to 50 per cent., and sometimes more. The defects by it are: lacking of substance, and the curtail of weight, absence of fine flavour, want of strong elastic texture, and every fine essential constituent, most of which are generated and combined in the latter and last stages of the growth, ripening and perfecting

As tobacco is an aromatic plant, whose odours are most fragrant from being fully ripe, and a material part of its value depends upon the flavour, too much attention cannot be paid in selecting the ripe, *very ripe* plants for the knife, in the true Virginia style, instead of slaying a field at once; some ripe, some three-fourths ripe, and a part only half ripe; according to the Kentucky custom, which I have witnessed with feelings of regret and astonishment.[*]

Curing.

Another great error consists in curing. All rich, ripe plants, should be cured of a bright, lively colour, which improves it very much in flavour.[†] To be able to cure it of such an appearance, it must be ripe and rich; possessing the wax, oil and stamina, or in attempting to give it the proper colour, it will fade in the process, and come out a sickly looking yellow if checked in the early stage, or a dark dingy brown, nearly black—and be worse and of less value than if permitted to remain in its original dark, dingy, natural colour, which is the general and very objectionable colour of the greater part made in the western country.[‡]

Many of you, knowing that two processes that will produce the favourite colour, which are hard to describe, I need not attempt it, lest I may not be understood. And as the chief cause of bad curing in the western states, is owing to indifferent, leaky, open houses, generally log-houses, open between the logs, I cannot too strongly urge the propriety and necessity of close, tight houses, with many windows to open and shut at pleasure; to have a good command of the weather, and avoid much use of fire and smoke, which engenders a bitter taste and bad flavour, that never can be entirely eradicated. The smoke is very objectionable for every purpose and in all markets.

The method for kiln-drying plank, at saw-mills, is a cheap and excellent plan for curing and maturing tobacco, after it gets to the close-house. This plan excludes the smoke and greatly lessens the danger from fire. It is simply by cutting a ditch through the tobacco-house floor, and covering it with thin slabs of stone, or arching it with brick, and making a fire in the lowest end of the ditch—the smoke and heat will pass through to the other end, and enough heat will rise up in the close-house for the purpose of drying, curing and maturing.

As you understand the terms coming and going, (moistening and drying) from the atmosphere, respecting the curing, I will advise without entering into their minute explanation, that you cause it to come and go very often, which will improve it very much in flavour, and should be accomplished before striking, taking down, stripping, and tying up into bundles.

The improvement in curing by often coming and going, should be done without moulding in the stem or the leaf, which is an easy performance with close tight houses, and fires in all damp weather. This high curing tends very much to preservation, as well as fine flavour, and prevents hard sweating, which is too severe an operation in all humid climates and long summers.

The same mode of curing is applicable to Maryland and Ohio, as Virginia, Kentucky and the other western states.

Assorting.

The fourth great error is very general, and extremely injurious, and of easy remedy. That of putting fine with good and inferior, in the same bundle and in the same hogshead, all mixed together. This causes almost a sacrifice to the fine and the good, because the inferior will injure, and I might say, damage and almost destroy the fine and the good, by being in contact with each other, during the natural process of sweating, which is an ordeal that it undergoes in this warm and humid *damp* climate, with much greater severity than in Virginia, where the atmosphere is much drier, and the summer's heat of shorter duration than in this place, and the western states generally.

However good his crop may be, no planter, in assorting, should make less than three grades or qualities, and four would in general be much better.

If a plant be ripe, *in perfect ripe order*, and not washed by any recent rains before cut, the four top leaves will be much the richest, smallest and finest texture, best flavour and finest colour, and when cured perfectly, will be much the most valuable; but this is not yet admitted by more than two thirds of the Virginia planters, who are of late rapidly acknowledging the truth and correctness of the above remarks, and reducing them to profitable practice

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[*] How can that be? Have not all the leaves "branched off" before the operation of "topping" is performed? The leaves will doubtless be larger and thicker, or the reverse, according as the plant is topped, low or high.

[*] In Maryland, where the matter is as well understood as any where, the practice is for the most experienced to go through the field, row by row, selecting and splitting down to near the root, the ripe plants, and then the cutters follow; leaving those not ripe enough to remain for a subsequent cutting. Tobacco split in this way, is afterwards *straddled*, bottom upwards, upon sticks to be hung up. The *tobacco* ripens so unevenly, that to cut "fore and aft," would embrace a portion too green; or if left until all was ripe, a large proportion would be too ripe.

[†] The writer might as well say that all tobacco should be sold for a high price. How are you to insure a "bright lively colour?" that is the question; for though much undoubtedly depends on management, the *soil* is known to have an influence that no management can control. It is very certain that by cutting in a green state, and by curing and handling injudiciously, even new hilly hickory and dogwood land, will not give tobacco of a bright lively colour; yet it is no less true, that the most skilful culture and after-management of this plant, when produced upon old, or upon low, rich, or highly manured land, will not insure a bright lively colour. Indian corn is, perhaps, influenced more by climate; but it is doubtful whether *soil* exercises over any thing, even wheat, more unmanageable influence, than over tobacco—and we know that the Washington white wheat of the Eastern Shore of Maryland will not long retain its character, even in an opposite county ten miles distant, across the Chesapeake. After all, we do not mean to say that bad management will not *every where* be attended with mischief, nor that the greatest disadvantages may not be mitigated by care and skilful attention.

[‡] There is a confusion in this paragraph which forces upon us the apprehension that the writer has not been himself a *practical cultivator*, and though neither have we, we have approached it so nearly as to have been required during the period of school boyhood, on Saturdays, to drop and plant—to command an army of turkeys against an army of worms of superior number—to top and heap the plants in the field when cut, and to straddle it on the sticks. We have often compounded to strip a hundred pounds a day rather than walk three miles to school of a cloudy morning; and sometimes been forced, not without murmuring and a sense of encroachment on our rights, to work a little on *Saturdays*, for *these* were never too cloudy to shoot squirrels and hunt rabbits.

What means the writer by tobacco of bright lively colour alone "possessing wax, oil and stamina?" Does not the dark, heavy, rich tobacco of Virginia possess wax, oil and stamina?

These four top leaves should form the first class—the next three or four, the second; and all but the ground leaves, the third; and the ground leaves and all other inferior from various causes, should constitute the fourth and last class.

Order.

The crops of the western states have generally been put up in such soft, humid, *damp* order, that they have become proverbial for that fault, all over Europe and our eastern markets, wherever it has found its way into use and consumption; and of all the climates known to the writer, this is the severest on tobacco; hence the greater necessity of attending strictly to dry order, so important for the preservation.

No experienced good planter, having a proper regard to the ultimate order and value of his tobacco, will ever strike it going out of order, or handle it in cold or cool weather, when it is impossible to manage it to the best advantage.

For stripping or pressing in hogsheads, it should be struck and taken down in mild, warm weather, when it begins to come in order, so soon as the leaf begins to soften and yield to the pressure and grasp of the hand without crumbling, while the largest fibres and stems remain dry and brittle. Bulked in this order, in damp, mild weather, the stems will imbibe a part of the moisture from the leaf, and some from the surrounding atmosphere, and gradually yield to weight and pressure, without breaking, and only cracking partially, which is no disadvantage. Hogsheads made of green or damp wood, will damage the tobacco very much if pressed in them in that order, and the acid of the wood injures more than the moisture. From this cause alone, I have often seen thrown off from the heads, and cut from the sides, 150 to 200 pounds a hogshead. The loss to the planter is not only in the deduction of weight, but the reduction in price for the disfigured, mutilated remnant of a hogshead, is the natural, practical and certain consequence in every market.

Packing and Pressing.

The order has been already mentioned. In packing, the leaves, which ought never to exceed five to a bundle,* should be arranged parallel with each other, and the bundles laid or packed in the hogshead parallel with one another, in the Virginia style, and not tangled across each other, according to the Kentucky custom, which is not universal, but too generally in that and the other western states. But in justice, without flattering, I can with pleasure say, that I have seen many crops from Kentucky and other western states, previous to and since my short residence here, very properly and elegantly managed, some of them by planters who were neither Virginians nor their descendants; which proves that it neither requires Virginians nor Virginia land exclusively, to produce that which will command the highest prices at home and abroad.

As evidence conclusive, that the western states and planters are capable of making tobacco that will command as high prices as the Virginia planters can make in their state, I will inform you than many shipments of Kentucky tobacco have been made from Richmond, in Virginia, with Virginia tobacco, to Great Britain, when and where the Kentucky tobacco was taken for Virginia, and sold equally as high, and the difference has never been known by the consignee, manufacturer nor consumer. The fact is, that Virginia, Kentucky and Missouri, all lie in the same range of latitude, and have similar climates, soil and inhabitants, and nothing but the superiority of soil in the western states, has caused an inferiority of quality, partly owing to the too rank, large, quick and coarse growth, but chiefly to bad preparations and neglect in management, where it has been much easier to make a good living. But those who wish to aspire to more by the culture of tobacco, will find their account, with compound interest, in better management.

If you will manage your tobacco generally, as well as it has been in Virginia, and to a small extent in Kentucky, Tennessee and Missouri, I will venture to predict, that you will soon eradicate prejudice at home and abroad, and in its place implant that partiality which I have attempted to demonstrate as practicable and easy.

But as this valuable article undergoes many neglects, injuries and abuses *here*, in the various practices and regulations, which originated, perhaps, and probably, in the early state of the trade, under the Spanish government, which, by degrees, have settled down into customs and almost laws—all beyond your management, alteration or control: such as inspecting it by breaking each hogshead in two or three places, and not sufficiently closing the apertures of the breaks, by pressing or screwing down the heads in the Virginia style, to exclude the air, which causes it to mould in the breaks. The mould thus engendered, continues to spread its deleterious influence so far as to injure from a third to a half the tobacco, in many instances; and from this cause alone, lessens the value from a fourth to a third; and it has frequently happened that 50, 100 or 150 pounds per hogshead, and sometimes more, has been thrown off for the purpose of getting in the heads to line them out, which has swelled up by the expanding of the tobacco when standing open, instead of screwing or pressing it down to line out as it was before inspected. This throwing off to get the heads in to line out, is a very common practice, and the tobacco thus thrown off generally sells at a reduced price; but the loss by the reduction in price, and the injury from the mould in the breaks, are not the only injuries and losses sustained by the throwing off instead of pressing it down. The rising up from elasticity when open, for inspection, or sampling, and not closing by pressure, lets in the air to a sufficient degree in every part to invite and cause a mould throughout, sufficient to injure many hogsheads, fifty per cent., and some to a greater extent when the quality was fine.

But of all the injuries which your good and fine undergoes after you put it properly in the hogshead, is that which arises in this place from storing and stowing it in close houses near the ground, where it has not a sufficient free circulation of the air.

This alluvial country is formed from encroachment upon the ocean, by the rich deposit of vegetable and other matter, the alluvial washings of the great rivers from the upper countries, and the earth exudes, exhales and evaporates in warm weather, a peculiar deleterious vapour, which the attractive power of the tobacco imbibes, when so near the ground in these close houses of confined air, as to give the tobacco an uncommon bad flavour, by which the *New Orleans* tobacco is generally known nearly all over the world, and is incorrectly and innocently called the *Kentucky* flavour—which never originated in that country, with any except such as may have been exposed to the same cause, on river bottoms, which seldom, if ever, happened, as you generally send your tobacco to this place before the great exuding season of warm weather.

When the good and fine tobacco from the western states, has been carried to Richmond or Europe early, and before it acquired the *Orleans* flavour, by lying here in warm weather, no one in either country could distinguish it from good and fine Virginia tobacco; and as the chief value of your good and fine depends upon flavour, the *Orleans* flavour injures their value 25 to 40 per cent., and sometimes more, particularly when it lies here during the summer.

B. J. HARRIS.

(From the Massachusetts Agricultural Repository and Journal.)

ON THE CULTURE OF LUCERNE,

Translate and abridged from the course of Agriculture of the Abbe Rozier.

(Concluded from p. 44.)

Of the Care required for Lucerne fields.

When the soil is adapted to the plant, and it has come up well, it requires no care. This remark does not agree with the assertions of authors, who prescribe *weeding* as necessary to success; a precaution useless, an expense superfluous, if the lucerne has not been sown too thin. I had scarcely, says the Abbe Rozier, chosen Languedoc as the place of my retreat, than I began to sow Lucerne, and full of the ideas I had before acquired, I caused my fields of lucerne to be regularly weeded. The peasants smiled at my care and solicitude. I asked them the reason of their ridicule. The lucerne, said they, will do more for itself than you can do for it; let it alone, it will kill the weeds without your help. For this time they were right; the part of the field which was not weeded, was the next year as good as that which had been. After that I was not so ready to throw away my money for nothing. The Abbe occupies some pages with the destructive effects of an insect, a Scarabæus, something like our rose bug, upon fields of lucerne; but as we may never be visited with that scourge, we shall omit his remarks on the subject for the present.

Of the different crops of Lucerne in the same season.

If you give credit to the assertion of an English writer, Mr. Hall, in other respects a writer of great merit, the southern parts of France have the advantage of making even seven crops a year. Unhappily for them it is not true, be the seasons ever so favourable, even when you have water at command and can water your fields at pleasure. If you cut the plant before it is in full flower, you obtain only a watery plant of little substance, and which loses three fourths of its weight in drying; it would, besides, afford but little nourishment. Supposing that the crop should be cut from the beginning to the middle of April, is it possible that the lucerne should have time to flower seven times in the same season? It is rare that we can have more than *five crops*. The ordinary number in the provinces of which Mr. Hall speaks, is four crops. If the season shall have been favourable, it is a fine and rich product. No field yields numerically so much as a good lucerne field. It is a *clear and net revenue for ten years*, which demands no culture, no advance except that of preparing the land for the crop at first, the cost of seed and the wages of the mowers. One third of an acre, or 400 square toises of lucerne field, are usually let for one hundred and fifty livres, or thirty dollars a year! Happy the proprietor, who has much land fitted for lucerne.

Many persons affirm that lucerne will succeed in any soil. If this assertion was as true, as it certainly is false, a great part of Provence and Languedoc would be covered with lucerne, because natural meadows are very scarce in these provinces for want of water; but experience has proved, most decisively, that lucerne requires a deep soil, not clayey, neither too stiff nor too sandy.

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* Where the leaves are so large as not to admit more than five to a bundle, we should suppose they could hardly be of bright lively colour. Do *great weight to the acre*, and a fine yellow colour, ever go together?

By the preceding notes we do not wish to disparage the valuable hints contained in the circular of Mr. Harris, for which we are indebted to one of the first mercantile houses in this city.

* In the central provinces of France, lucerne is cut three times in ordinary years, and four times in favourable ones, and from two to three times in the

northern provinces. It is a general rule that lucerne should not be cut except when in flower; before that state it is generally too watery, and its juices crude; after that period it becomes too dry and too woody. Cattle should not be suffered to feed on lucerne fields after the last cutting, nor during winter, when the ground is soft. The heads of the plants yield to the hoofs of the cattle and injure the grass essentially. It is useful to pass a harrow over a field of lucerne in the spring, and the crop will amply repay the expense of it. Lucerne should be cut in a cool dry time, and tended as rapidly as possible. Rains—frequent rains while making, are very injurious to this grass. Let it be cut under circumstances ever so favourable, and be perfectly dry, it must not be carried in with the dew upon it, nor moved in the very heat of the day; because, in that case it is very apt to lose its leaves which are the best part. For this reason it should be stirred as little as possible in the middle of the day. Great care should be taken that the hay should be well cured, otherwise it is apt to heat, and even take fire. The first cutting of lucerne in any season is the least valuable, because it is apt to be mixed with other grasses or plants. The second is the best the third is usually very good also, but in the fourth and later crops, the juices of the plant are not so rich, and of course are less nutritive.

Of the means of renewing the vigour and growth of Lucerne fields.

Lucerne fields will wear out in time, but you may retard its period of decline by different treatment and manures. The first, which is the most prompt, convenient and cheap; is to feed your sheep upon it after the last cutting, and even during winter.

Mr. Meyer proposed in 1768, to employ gypsum, or plaster of Paris, to revive and recruit old lucerne fields, and communicated to the Economical Society of Berne, the several experiments he had made. These experiments were repeated by Mr. Kirchburger, with care, and the following were the results:

1. That a quantity of calcined plaster, equal in measure to the quantity of oats which would be required to sow any piece of land, is sufficient to manure it.

2. That gypsum succeeds better on lucerne fields which are rich, than on those which are poor and sandy.

3. That it produces a greater effect the first than the second year.

4. That it is less active in a moist soil than in a dry one.

5. If you sow the plaster as soon as possible in spring, the first crop will feel the effects of it.

Mr. the Abbe Rozier adds, "I acknowledge, according to my own experience, that plaster is very beneficial for lucerne fields which begin to decline; that it facilitates in a great degree the growth of the large clover; that it is very useful in meadows covered with moss."

The Abbe proceeds to recommend also air-slacked lime, which he prefers to plaster. He notices, and approves a suggestion of the celebrated Duhamel, that when a lucerne field becomes partially disfurnished by the death of some plants, to supply their place by laying the branches of the adjoining ones, which will take root; but it seems to us that a simpler course, which we have long since adopted with clover, is preferable; which is, every spring to run over the field with a harrow, and throw in fresh seeds in the bare spots.

Of the value of Lucerne as food.

Lucerne loses some of its value in proportion to its distance from its native soil; that is to say, it is not so nourishing, because its juices are more watery when grown in northern countries. Notwithstanding this, no fodder can be compared to it in point of quality; none keeps animals in so high a state of flesh; none augments or increases the quantity of milk so much as lucerne. These praises in all respects merited, require, however, some qualifications. Lucerne is heating to animals, and if you do not moderate the quantity in the hot season of the year, and especially in *southern provinces*, horned cattle will become diseased. If you trust your labourers, they are so proud of seeing their cattle fat, that they stuff them with this food, and are unwilling to believe that it can be the cause of disease. I know of but one mode of preventing the waste of lucerne by your servants, and labourers, and that is to mix it in equal parts with straw, not in layers, but confusedly and generally mixed. The straw contracts the smell and flavour of the lucerne; the animals eat it with pleasure, and are never injured by it. Lucerne, given green to horned cattle or horses, is apt to purge them; for which reason it is a rule never to give it till it has been cut twenty-four hours. Care also is taken to give it in small quantities at a time, lest they should be hoven. This is not peculiar to lucerne. The same effects are produced by green wheat, oats, &c. &c. All pasturage which is too succulent is dangerous. In case this accident of being hoven should occur, an expedient which I have tried has never failed, (says the Abbe Rozier,) which is to make them swallow an ounce of nitre (salt petre,) in a glass of brandy, to empty the bowels of the animal, and to make him run.

CULTURE OF SUGAR CANE.

[The following was put into our hands by the Hon. J. S. Johnson, of the Senate of the United States, and will be found to contain facts of great publick interest. It will be perceived that the experiment detailed was tried in lat. 31° 46, which shews that all that portion of our country south of that line, will produce sugar and molasses—and that, consequently, there is sufficient soil in the United States to supply our own demand for many years to come.

The consumption of these articles is at present upwards of twelve millions of dollars, and is increasing with our population. The culture of the cane will open a great field for the most profitable employment of slave labour, and will enable us to supply ourselves with an article especially of the first necessity, and the climate is known to be highly congenial to the African constitution.

The letter, says Mr. Johnson, is from a gentleman of high character, and entitled to entire confidence. He adds, by way of explanation, that 6° of the aerometre of Baumé will make sugar.]

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(From the Alexandria [Louisiana] Gazette.)

Mr. McCoy:

Sir,—The enclosed translation of a letter from Mr. C. Noyrit to me, on the subject of the culture of the sugar cane on Red river, cannot fail to be interesting to many of your subscribers. It will be observed that seven degrees of the pese-sirop of Baumé indicates that state of ripeness which will afford good sugar. The experiments were made in lat. 31° 46, and with great care. He gives me also the experiments made at the same periods on the Mississippi, near New Orleans; and the results of both appear to be entirely satisfactory, particularly as it relates to the ribbon cane. Minute observations for more than twenty years, prove that the average period of killing frost, in this latitude, is the 20th November. The publication of this, together with the detail of these experiments, may direct public attention to an object of great interest to this part of the country; and by affording them a place in your paper, you will oblige

Yours, &c.

H. A. BULLARD.

[TRANSLATION.]

To Judge Bullard—present.

Sir,—According to your desire, I have the pleasure to communicate to you, the result of the experiments made by me, jointly with Col. E. Bossier, on the juice of the sugar cane, as follows:

Oct. 1st, 1827.—We pressed one half of a ribbon cane; took the lower part, and it gave us eight degrees, according to the pese-sirop of Baumé. The creole cane gave but six degrees.

Oct. 10th.—Half of a ribbon cane, four feet and a half long, gave us, the lower part nine degrees, and the whole together, eight *strong*. The creole cane gave but six and a half degrees.

Oct. 21st.—The ribbon cane gave us seven degrees and a half. We think this difference was occasioned by a heavy rain which had fallen the night before; and besides, we took on that day two of the greenest canes. The creole cane gave but six degrees.

We pressed at the same time a ribbon cane, which we had cut on the 10th of October, measuring four feet and a half, and it gave us on the 21st, nine degrees.

Oct. 31st.—Of the ribbon and creole cane cut on the 21st November, and put in matrass, the first gave us this day nine degrees, and the last eight degrees.

November 10th, 20th and 30th.—On each of these days the ribbon cane gave us nine degrees and a half, and the creole eight degrees *strong*.

You perceive, sir, that according to these experiments, there is no doubt but that the Red river is capable of producing fine sugar with the ribbon cane: and if you think these observations would be useful to your fellow citizens at Rapides, you are at liberty to give them publicity.

You will recollect at the same time, sir, that I communicated to you a letter from a good sugar planter, of the parish of St. Charles; and you will perceive that there is very little difference between us. I give you a copy of his letter:

"I have made," says he, "on the juice of the sugar cane, with a *pese-sirop* like yours, the experiments you requested, and the following is the result: The ribbon cane raised on old land, as ripe as possible for the season, gave me on the 1st of October, seven degrees *strong;* which is considerable for the season, and sufficient to make very fine sugar. According to your request, I repeated the same operation at the different periods indicated by you; and such was the progression, that the same cane, towards the end of November, gave ten degrees. In general, the creole cane was less ripe at the same periods."

He tells me, also, that their cane was frozen about the 15th December; ours was on the 30th of November, making a difference of only fifteen days; and you will perceive that we can commence making very fine sugar towards the end of September, with the ribbon cane.

Accept, sir, assurances of the great consideration with which I am Yours, &c.

C. NOYRIT.

Natchitoches, Feb. 10, 1828.

(From a Correspondent.)

Most Extraordinary and Destructive Frost in Alabama.

J. S. Skinner, Esq. *Mount Columbo, 9th April*, 1828.

Sir,—Our winter has been the mildest since the settlement of this country, and our spring was advancing most rapidly, until within the last ten days, since which time we have had as cold weather and as hard frosts as any during the winter. Much more wheat and oats have been planted this year than heretofore, to provide for the great deficiency of corn, caused by the excessive and almost universal drought of last summer. These crops were very promising, until within a few days; but the frosts, particularly of the 5th, 6th and 7th instant, have almost entirely destroyed the wheat, as most of it was heading and some in blossom, and has much injured the oats which were sowed last autumn. These frosts, I fear, will be felt as a great calamity, and will cause an alarming scarcity of bread stuffs in this country. But few of our fruit trees have, as yet, blossomed, notwithstanding the great mildness of our winter, which has excited the astonishment of all, and which, perhaps, no one is able fully to account for. Some conjecture one thing and some another; and many suppose the peach trees will not blossom this year. I think it probable that from the extraordinary deficiency of rain, during the last summer and autumn, the flowering buds, which, I believe, usually acquire their full growth before frost, did not come to maturity, and that, therefore, they will require time to grow a little before they are prepared to blossom, and I believe most of them will yet blossom.

Yuur obedient servant, &c.

ANDW PICKENS.

EXTRACTS.

Huntsville, Alabama, 10th April, 1828.

"On the nights of the 5th and 6th instant we had a freeze and frost here that has destroyed our gardens; and what is uncommon, the peas in the gardens are entirely killed. Our corn that has been planted the 1st of March, and of some growing size, was killed into the ground; the wheat was in a common way, about eighteen inches high, it is killed to the root; I had one hundred and sixty acres sowed. All the fruit entirely killed that had bloomed. I discover a part of my apples not bloomed, and some few of the plum kind, such as the damson and other late plums and cherries. The ground was frozen three or four inches deep, and we had ice an inch thick. Such cold weather was never felt in Alabama in April."

Dublin, Geo. April 17th, 1828.

"We have had some very cold weather in this month, which has blighted the crop of grapes: We have had an unusually warm winter—January was nearly nine degrees of meridian temperature warmer than any January in twelve years."

HORTICULTURE.

PRUNING GRAPES.

J. S. SKINNER, ESQ. *Columbia, S. C., April* 20, 1828.

Sir,—I noticed in the American Farmer of the 11th inst. a short article in which you state, having "been warned by a correspondent in Alabama, that what I observe in relation to the pruning of vines, after they have put out in the spring, will not hold good previous to their putting out after the sap is rising freely," &c. I should exceedingly regret that any person should be led by any thing I have written on the subject, to so serious an injury as this which yuur correspondent mentions to have been the case with a gentleman who lost "all he had by late pruning." I wish your correspondent had referred to the particular part of my writing, whether in private correspondence or in publication, that I might have it my power to judge more accurately of the extent of the mischief I may have done. I do not recollect ever having positively advised late pruning, except in cases of necessity; such as, after the ill effects of a frost. I may have expressed an opinion, that possibly late pruning might prevent this bad effect, by retarding the putting out of the vine, which it certainly does; for, in the case of a vine which has been pruned early, the efforts of the sap are exerted on very few buds, which are by this means pushed out sooner than they otherwise would; for the buds which put out first in an unpruned vine, are those which are generally suppressed by the pruning. Whatever may be the effect of late pruning, I can assert that I never have seen an instance of the death of a vine for having been pruned at any particular time; and the gentleman above mentioned may have lost his vines by some other cause that he is not aware of. It is pretty generally said that late pruning ought to be avoided, lest the vines are injured by bleeding. This effect is so generally believed, and the appearance of a vine while it bleeds profusely, is so alarming, that I dislike very much to see it; but yet, I never have witnessed any ill effect from it. It is very possible that some kinds of vines may not bear it as well as others, and if your correspondent's remedy of tallow and finely powdered charcoal stops the bleeding, it ought to be resorted to whenever practicable. I generally prune as early as I can, but it is not for fear of the bad effects of late pruning; but because by so doing I have cuttings to plant earlier, and also more time to attend to the other necessary work.

Several very severe frosts having in the first week in this month done more injury to my vines than I ever have witnessed before, I have just finished pruning off the injured parts; and this operation was so severe, that it might be called amputating; for I have cut off all the last year's wood, just below the young shoots that had been in the smallest degree affected by the frost. By this my vines are left perfectly naked, not having one single green leaf, and but very few buds, that had not yet put out, and on which I solely depend now for a crop this year, which will, of course, be very small. The vines have bled much, but they have nearly stopped. Although this state of things does not precisely come within the objections of your correspondent, yet it must come very near it, as the vines are now absolutely destitute of leaves. I believe that the reason why the vines do not bleed when they are in full foliage, is that the sap is sufficiently evaporated by the perspiration of the leaves, which sap being very abundant, must run out when the vines are cut at a time when they have no leaves, and it is in circulation. It is true that in the night time the leaves perform, probably, a contrary operation by absorbing moisture from the air; and this may be the difference by which the bleeding may sometimes be found injurious. What will be the effect of my bold *chirurgical* operation on the vines this spring, I cannot positively say; I can only hope that it will be followed by the same beneficial effects which have resulted from similar ones formerly performed; although, as stated above, I have never known so great an injury before by frost.

I really wish you correspondent had quoted my words, and the place where to find them; and although I have no kind of doubt of his truth and honour, yet it would have been, perhaps, somewhat fairer towards me, had he given his name, at the same time that it would be likely to give more credit to his assertions. Although I should prefer this mode of making observations on what I may have uttered, yet, as my only wish is to do as much good as it is in my slender power to do, I make no objection at all to any discussion being elicited on this subject by your Alabama correspondent, or any other person, whether they chuse to give their names or not. I only say that it is more desirable they should, both in fairness to me, and as regards their credit in the world.

You have also hinted to me, sir, in a private note, that I ought to proclaim, candidly, the difficulties or impediments to the making of wine *profitably* in this country. I am not aware that I have at any time purposely concealed any thing of the kind; but I am perfectly willing to do *expressly* as you hinted; and this may be a very suitable season for this, as our late frosts are one of the greatest we have to encounter. If this could be obviated, the others are probaby more easily surmountable. I shall in due time inform you of the effect of my late severe remedy, and if any of your correspondents can suggest an effectual one, I shall be most happy to put it in practice. I must state here, that I have no faith in the prevention of the effects of frost by means of a straw rope passed round the vines, or other trees, having its ends dipping in water. I have, *reluctantly*, tried it without any sort of success; but this may be owing to my want of *faith;* or to be more candid, it may be that its good effects are only against a slight frost, and cannot avail against such severe ones as we had lately, after having had so much warm weather.

The next great difficulty, and perhaps the greatest, is our want of practical knowledge, perseverance and industry in the pursuit. We are apt to go from one extreme to another. Some seem to think that it is sufficient to plant vines, and then let them take care of themselves; and when the *poor things* are found not to do well, the project is abandoned. I should like to know how much cotton, rice, corn, tobacco, wheat, &c. such persons would expect to make by the same means? Others go to a most extravagant extent, scarcely knowing the a, b, c, of the business. I have heard of one who made his negroes plant this winter *one hundred and fifty acres of vines.* I venture to predict that he never will make five gallons to the acre from these vines. If a person thinks he can just substitute vines to cotton, or corn, or tobacco, without having any practical knowledge of the culture the vine requires, he will find himself disappointed. If he be a lawyer, and get no business, he might as well substitute the practice of medicine without any previous study to fit him for it. As theoretical knowledge alone is not sufficient, the best remedy to remove this difficulty, is, after much reflection on this subject, to get from Europe a number of suitable persons in families. They ought to be under the direction or advice of some one experienced in this climate. These being judiciously scattered through the country, would form establishments, and diffuse that knowledge and practice which are wanted, and without which we shall not do in *fifty years* what we could, by this means, do in five. If, therefore, it is desirable to introduce this culture in this country, I know of nothing likely to yield more beneficial results in many respects, it ought to be done according to that manner which will insure the most speedy success. This, however, is not easily done by private enterprise, on account of the expense; but I think it is clear that, if the country is to receive the benefit, the country ought to afford such assistance in forwarding this object, as is not in the power of individuals to afford, unless they are wealthy, and these do not appear willing or patriotic enough to undertake it. The objection of individuals is, that the returns are not to be expected for several years. This brings me to state this as one of the difficulties; which is, that we do not like to wait three, four, or five years before we reap the fruit of our labours and expenses.

Another difficulty of some considerable magnitude is, the number of birds and insects against which the vine cultivator has to wage an incessant war. The remedy for this is obvious, though not easy; and it is their destruction. When, however, extensive vineyards are established, the depredations committed must be spread on a larger surface; consequently less sensibly felt, when, at the same time, there will be more persons interested and occupied in the destruction of these depredators.

Another kind of depredators are also much to be dreaded; and I regret to say that in this country, which is emphatically said to have a government of laws, property necessarily exposed, is so little respected; and people are seen, some of whom, one would think, ought to know better, to prey on and carry away the fruit of other's toils, as if it were a matter of right. If it be not a matter of right, it is a mater of custom, and a most shameful one it is. The remedy to which—*honesty in the people and laws to enforce this virtue*, is most obvious, though perhaps difficult of attainment.

These are the most prominent obstacles to the successful cultivation of the vine in this country, that occur to me at present. When I write to you again, which I intend to do shortly, if any other difficulty occurs to my mind, I shall mention it.

I am, respectfully, dear sir,
Your obed't serv't,
N. HERBEMONT.

GOOSEBERRIES.

In all cases, the gooseberry should be kept free from suckers, and trained near the ground to a single stem—this mode of training them being found to cause a far greater product in quantity, as well as an increase in the size. They need much attention in other respects, and one-third of the old wood must be regularly trimmed out every autumn, by which means a succession of thrifty bearing wood will be kept up. As the finest fruit is produced on the young shoots of the previous year's growth, it is also necessary every autumn, to dig in a plenty of old well-rotted manure around them. This treatment will cause them to grow strong, and the fruit to be large and fair. Where the summers are very hot, a northern aspect is preferable, and the fruit will be twice the size if they are planted against a north fence, or in any other situation where they are sheltered from the intense heat of noon-day, which, when differently situated, often scorches the fruit to such a degree as to entirely stop its growth.

THE HIGH CRANBERRY.

Few people seem to be aware that this shrub, or small tree, which grows plentifully in the marshes and swamps around us, yielding rich clusters of very handsome fruit, a delicious tart, may be cultivated with ease and success in our gardens and shrubberies. Without knowing that the attempt had ever been made, I tried it last spring, with some half a dozen shrubs, all of which bore the transplanting very well: for they lived, grew as vigorously as most vegetables do the first year, and some of them bore fine bunches of fruit. The twigs taken off, put out as cuttings, also took, which shows with what facility we may stock our gardens with cranberries. [*Rochester Adv.*

INTERNAL IMPROVEMENT.

BALTIMORE AND WASHINGTON RAIL-ROAD.

The Baltimoreans seem to be really in earnest in the plan of making a Rail-road from the Monumental city to the City of Washington. They have applied to Congress to allow them to make that part of it within the limits of the District, on terms correspondent with those on which it is to be made within the state of Maryland. A bill for that purpose has passed the Senate, and has been ordered to a third reading in the House of Representatives. The charge on the transportation of all goods, &c. is not to exceed a cent a ton per mile for toll; and three cents a ton for transportation; and for the transportation of passengers, the charge is not to exceed three cents per mile. This important project, if carried into effect, will greatly facilitate intercourse between this city and Baltimore. The distance will then be travelled in about one half the time which is now required for the travel of the mail stage over the same ground. As for personal intercourse, a man who is willing to amuse himself, will then be able to travel four times in a day from the one city to the other; and, in regard to business, it will be mere amusement for a Washingtonian to go to Baltimore in the morning and arrive at home in the evening with a whole cargo, even of the most bulky articles which enter into commercial transactions. What a contrast will not this be to the time which we remember, when the mail stage would leave Baltimore before day-light (in the winter season,) and by dint of great exertion, reach here at nine or ten o'clock that night! In fact, it was often the case, after wet thawing weather, that the stage did not arrive here until the day following, and sometimes even late on that day. [*Nat. Int.*

"*A bill to authorise a Rail-road within the District of Columbia.*

"*Be it enacted, &c.* That the assent of Congress to the constructing a rail-road, by a company incorporated by the Legislature of Maryland, from Baltimore to the City of Washington, be, and the same is hereby given, to the extent that Congress has jurisdiction of the soil over which it may pass, conceding to said company to exact such tolls, and to enjoy such benefits and privileges, as the act of incorporation of the state of Maryland gives to said corporation, within the limits of the state of Maryland: *Provided*, In the location of the road, it shall not be lawful for said company to pass through any of the reserved squares or open spaces of the city, without the consent of Congress."

LADIES' DEPARTMENT.

Code of Instruction for Husbands.

[Wives need not shew this to their husbands, but if it fall in their way—very well.]

1. Let every husband be persuaded that, in the government of his family, his authority is paramount to every other, and that his responsibility is therefore weightier than that of his wife. Let him recollect that one word from him will go farther than stripes inflicted by her; and that whilst she sinks into gentleness and good nature, he must support government.

2. Be careful to act with such discretion and good temper towards your wives, as to allow them no occasion to contradict you. When we play the lion, it is not wonderful that they should act the tiger.

3. Be careful to bestow upon the standing and capacity of your wives, that respect and affection, which may seem to be applied in their admission to a participation in your plans and transactions. By thus consulting them, you will relieve them from the necessity of giving their advice unsolicited.

4. Exhibit that unexceptionable morality which no censor, much less an affectionate wife, could condemn. It is the duty of husbands to be an example of patience, goodness and sobriety to their families.

5. Remember that the condition of a wife, with every possible alleviation, is one of incessant care, of nameless inquietudes, and of peculiar suffering.

6. Remember also, that whilst the wife is compelled to use the most consummate and self-denying address, to perpetuate the affection of her husband, he secures and perpetuates hers at a very small expense of pains and attention.

7 Exact no more from your wives than you will be willing to accord under similar circumstances.

8. Submit to this code, and your wives will either conform to the foregoing, or else are incurable Xantippes, and consequently not to be conciliated by any concession. [*Col. Star.*

A Fine Extract from Cherries.

Whiskey barrel for a brewing cask, cut a stave to leave a hole five inches long. As you fill the barrel with Morello cherries, add twenty pounds of white Havana sugar; then add as much good whiskey as the barrel will hold. Over the square, put a piece of catgut or coarse muslin, to keep out insects. A stick will stir the contents of the casks, which is advantageous to be done every day. At the end of fifteen days, pour off, by the square, all the liquid, which put into a whiskey cask; then take the cherries and pound them in a hominy mortar until you crack the stones well—return into the cask, adding, at the same time, twenty pounds of Havana white sugar, and six gallons water—stir it daily six days; then strain off, and squeze out all you can get from the pulp, adding it to the first drawing—spicket the barrel and put it on skids—in a few days it will refine, and prove to be a delicious extract. To be drank as you would wine. It will make punch, with the addition of a proper quantity of lemon or lime juice, or with water.

Alexander Henry.

SPORTING OLIO.

(From the Hunting Directory.)

Portrait of a Sportsman of the Old School.

"In the old, but now ruinous mansion of Berwick Hall, in the East Riding of Yorkshire, once lived the well known William Draper, Esq., who bred, fed and hunted the staunchest pack of fox-hounds in Europe. Upon an income of only 700 pounds per annum, he brought up, creditably, eleven sons and daughters; kept a stable of excellent hunters, a kennel of true-bred fox hounds, besides a carriage with horses, suitable for the convenience of my lady and her daughters. He lived in the old honest style of his county, kiliing every month a good ox of his own feeding, and priding himself on maintaining a substantial table, but with no foreign kickshaws. His general apparel was a long dark drab hunting coat, a belt round his waist, and a strong velvet cap on his head. In his humour he was very facetious, always having some pleasant story, both in the field and in the hall, so that his company was much sought after by persons of good condition, and which was of great use to him in the subsequent advancement of his children. His stables and kennels were kept in such order, that sportsmen observed them as schools for huntsmen and grooms, who were glad to come there without wages, merely to learn their business. When they had obtained proper instruction, he then recommended them to other gentlemen, who wished for no better character than Squire Draper's recommendation. He was always up, during the hunting season, at four in the morning, mounted on one of his nags at five o'clock, himself bringing forth his hounds, who knew every note of their old master's voice. In the field he rode with judgment, avoiding what was unnecessary, and helping his hounds when they were at fault. His daughter Di, who was equally famous at riding, used to assist him, cheering the hounds with her voice. She died at York in a good old age, and what was wonderful to many sportsmen, who dared not to follow her, she died with whole bones, in her bed.

"After the fatigues of the day, which were generally crowned with the brushes of a brace of foxes, he entertained those who would return with him, and which was sometimes thirty miles distant, with old English hospitality. Good *old October*, was the liquor drank; and his first fox-hunting toast, was, '*All the brushes in Christendom.*' At the age of eighty years, this gentleman died, as he chiefly lived, for he died on horseback. As he was going to give some instructions to a friend who was rearing up a pack of fox-hounds, he was seized with a fit, and dropping from his old favorite pony, he expired! There was no man, rich or poor, in his neighbourhood, but lamented his death; and the foxes were the only things that had occasion to be glad that Squire Draper was no more."

Scene at a Nobleman's Castle in England.

Thank heaven! amidst all the display of wealth and magnificence at Raby Castle and Newton House, there is none of that over-strained and sickly refinement,

> "So dull, so vapid, so genteel;"

that I have too often met with in my walks through life; and on the evening previous to hunting days, the groom frequently makes his appearance in Lord Cleveland's drawing room, to receive his orders from his master's lips. I now want the aid of the pencil; for a Hogarth or a Bunbury would not have desired a better subject for their fancy than Tommy Hodgson would have afforded on these occasions. I will endeavour to describe the scene as I witnessed it.

The door opened with a footman's announcement of "Mr. Hodgson, my Lord;" and in walked Tommy Hodgson, presenting a full front to his master. No soldier on parade could present a better; no gate post was ever straighter; no Shakspeare's apothecary was leaner; and the succession of lines from the forehead to the chin, too plainly shewed that age had traced his cruel way over Tommy's honest face. Not a word escaped him until the Marquis took his card out of his pocket, and then the dialogue began. It was a rare specimen of the laconic:

Is *Moses* sound?
Yes, my Lord.
I shall ride him.
Yes, my Lord.
Also *Bergami.*
Yes, my Lord.
Dick, *Swing.*
Yes, my Lord.
Will, *Salopian.*
Yes, my Lord.
Lady Cleveland, *Raby.*
Yes, my Lord.
Edward, *The Parson.*
Yes, my Lord.
Lady Arabella, *The Duchess.*
Yes, my Lord.
George, *Obadiah.*
Yes, my Lord.
That's all!
Yes, my Lord.—[*Exit* Tommy:

I should here add that all these "Yes, my Lords" were accompanied with a respectful bob of the head, a partial shutting of the eyes, and the thumbs revolving with the uniform motion of a wind mill impelled by the gentle breezes of a spring morning.

[Declaim as we may against nobility and aristocracy, are we sure that we do not in some cases play the part of the fox in the fable? Is it not that the *grapes are sour!* Can it be said that there are few who would banish from their presence the pleasures that wait upon rank and wealth, if within their reach? It is easy to decry them: to do so is even thought to be synonimous with patriotism; but is not the possession to be *tolerated* on the ground of the *good* which opulence would enable us to do? To have a redundant income, a magnificent establishment, old generous wines; to have our halls and our mantles decorated with the exquisite productions of the chisel and the brush; a circle of cultivated spirited friends—splendid equipages; a stud of high mettled hunters for their accommodation, and a kennel of fine hounds to

> "Awake the morning echo in her cell;"

nothing, surely, could be more—anti-republican.]

(From the Annals of Sporting, for Jan. 1828.)

ANACREONTIC.

The moon is forth:—and while the cars
Of night are out, we will not sleep.
Send round the bowl, and show the stars
The vigils *earthly* spirits keep!
And if the vines, in yonder sky,
Drop for their train such purple tears,
The poets' tale should be no lie,
Which paints them singing in their spheres!

Shall we, because Hope's fount is dry,
Shun every fount that soothes the soul?
The pang that blights the heart and eye
Was never gathered from the bowl!
If looks be dim that once were bright,
To weep will hardly make them brighter;
And if our hearts be far from light,
At least, we'll strive to make them lighter!

Fill high the glass!—to-night we'll try,
For once, to make a truce with sorrow,
And they who think it wise to sigh,
May smile to-night—and sigh to-morrow:
But we who love the better mood,
To gather gladness where we may,
Will hail, across the purple flood,
The dawning of a brighter day.

HORSES.

The following remarks upon horses are copied from the publication of an eminent farrier in Europe; and we think them worth the perusal of farmers generally.

"The pulse of a horse in health, is from 36 to 40 beats in a minute, and may be easily felt by prefixing the finger gently upon the temporal artery, which is situated about an inch and a half backwards from the corner of the eye.

"Horses have not the faculty of puking, or even belching wind out of their stomachs, and therefore are peculiarly subject to wind colic.

"When a horse has been over-ridden, bloody spots may be seen in the whites of his eyes.

"A limber dock is sure evidence of a limber back; that is a weak one.

"A horse that is hardy and good for business, has a short back bone which terminates forward of the hip bones.

"A decoction of white oak bark, will kill botts by tanning them, and they will become so shrivelled as scarcely to be discernible when discharged.

"The principal signs of a good horse are these. The eyes set apart in the head, and large and bright; the quirl high in the forehead; one or two in the neck is a good sign; the neck well set on high; the shoulder blades pretty high, and converging to a point; the breast full and large, and so also behind; the body round, for flat bodied, or slab sided horses are weak natured; the dock stiff going wide behind, for if the gambols knock together, it shows that the horse is feeble; chewing the bit when provoked, is a good sign.

"It is a Spanish proverb, that "a dapple gray will sooner die than tire."

List of Thorough Bred Stallions.

Places and terms of standing—Season of 1828.

Rob Roy.—Fourteen years old, a fine chesnut, not a white hair about him, by Gracchus, (son of Diomed—sire of Sir Archy, out of the imported mare, Lady Bunbury, by Trumpator, upwards of fifteen and a half hands; stands at the "Mill Tavern," of Nathan Lufborough, Esq. four miles above Georgetown, on the River road—at $15 each, to be discharged by payment of ten, on or before the 1st of October.—Insurance, $25, and five, cash, for the single leap—twenty-five cents to the groom—pasturage fifty cents per week.

Marshall Ney.—Four years old—blood bay—black mane, tail and legs—fifteen and a half hands high—got by the celebrated American Eclipse—his dam Diana, by First Consul—stands at Elkton, Maryland, at the stable of his owner, Samuel Hollingsworth, jr. Esq. Terms, $20 the season—$30 insurance money, payable at the end of the season, 1st of August—pasturage, timothy, hay, grain, &c. &c. and provided at the market price.

The good people of Talbot county, in this state, ought to rear up speedily a stock of fine horses, if success depend on the *number* of Stallions at their service. There are advertised in the last Easton Gazette, all to stand at *Easton.* Young Gabriel, by old Oscar—dam Diamond by Vingtun—terms $5. Shanondale, by imported Eagle—dam "A full blooded mare"—terms $6. Tuckahoe, by Silverheels out of the dam of Lady Lightfoot—terms $6. Logan, by the imported Hunter Emperor, out of a Medley mare—terms $6. Canton Speculator, by Old Canton, his dam by Speculator—terms $3, (or three and a half bushels of wheat clear of garlic.) Valentine, a thorough bred horse, with the advantage of having been imported—a "lofty carriaged horse" sixteen hands one inch high—by Magistrate, out of Miss Forrester—terms $15. Young Diomead, sired by Diomead, who was sired by "Young Spotted Diomead,"—his dam by Nappertandy—terms $5.

MISCELLANEOUS.

POUNDS AND DOLLARS.

The following table, reducing sterling money into dollars and cents, we republish, that the planter may know what his cotton actually brings in American currency, agreeably to the foreign quotation.

Sterling.		*Cents.*	*Mills.*
1 *d.*	is	1	85
2	is	3	70
3	is	5	55
4	is	7	40
5	is	9	25
6	is	11	11
7	is	12	96
8	is	14	81
9	is	16	66
10	is	18	51
11	is	20	36
12	is	22	22

PATENT OFFICE.

We have pleasure in stating, that Dr. Thomas P. Jones, of Philadelphia, late of Oxford, in this state, is appointed by the Secretary of State to succeed Dr. Thornton, as Superintendant of the Patent Office, at Washington. The *Franklin Journal*, which has given so much celebrity to Dr. Jones as its Editor, will be continued, it is presumed, by him. His acquirements in practical science and chemistry, and his great knowledge of mechanics, has procured him the most honourable distinction in the estimation of scientific and literary men.—[*Ral. Reg.*

THE FARMER.

BALTIMORE, FRIDAY, MAY 2, 1828.

It is pleasing to witness the diffusion which is going on of the blood of the most improved stock, of various species. The publick seems to be awakened to the importance of keeping up in the highest perfection, and of using to a greater extent, the strain of the *bred* Horse—but what is of more universal importance is the keeping an eye upon the quality of our *neat cattle:* and here too there is evidence of a proper feeling by the great demand, beyond the means of supply for the pure stock of improved short horns at Powelton, the farm of Col. Powel, near Philadelphia. We were much gratified with an opportunity of viewing a fine young bull of this stock, a few days since, going to the fertile valley of Shenandoah, to be used there under the management of gentlemen of the best judgment. The theatre is a good one, and soon will be perceived the good fruits of this essay to improve their cattle and make them better correspond with the richness of their lands.

Whilst on this subject we may add, the introduction of the Southdown sheep procured by Colonel Powel, for his friend Col. Lloyd, of this state, is considered to have been attended with improvement in the qualities and value of that race of animals, in several important particulars—especially in imparting to them more thriftiness—greater hardiness of constitution—and better wool for certain useful purposes, and more desirable qualities as *mutton.* We are informed, that Col. Lloyd will sell a few half bred short horn bull calves, of last season, on his farm, for from 25 to $50. He will deliver year old half-blood Southdown rams in Baltimore for $10; and lambs of this spring, same blood, he will deliver in Baltimore, in July, for $5.

As far as we are capable of judging, we should think that those whose flocks have degenerated by breeding in and in—or which have been rendered more tender and less prolific by too much admixture of the Dishley blood; and where wool of extreme fineness is not their principal object; would consult their interest by taking the earliest opportunity to impregnate their flocks with the blood of the *Southdown.* We shall take an early opportunity of speaking more at large on the qualities of this breed of sheep.

☞ The sales of Improved Dairy Short Horns at Powelton, since October last, equal, we understand, $3000.

Eleven imported bulls, and seventeen imported females have been the basis of Col. Powel's stock. He has conceived it essential to establish different streams of pure blood, in order that the evils of "breeding in" to too close affinity may be guarded against. All the males and many of the females, were procured without limitation of price; two of the heifers having cost $1285. Some of them had taken prizes in England. Thus when we hear of calves selling at from two to three hundred dollars, we must not infer that the profits are large to *the importer;* more especially as he has never required for an imported animal, more than its actual cost. Fifty animals derived from this stock, principally males, have been distributed in different states, from Georgia to Maine. Many of them having been employed by the purchasers for hire, their offspring of course, has been widely disseminated. Some of the bulls, we have been assured, have made in one year nearly $500. Col. Powel, however, has never, in any instance, allowed his own to be employed for pay.

It is proper, however, to notice here the successful efforts of Mr. Patterson of this state. He certainly was one of the earliest improvers of neat cattle; and has widely extended the benefits of his breeds, which will be found commixed with the fine animals sent to our market from the rich lands on the south branch of the Potomac, and with the excellent cattle, famed in Kentucky, for their symmetry and great size.

☞Sluggards who discouarge every new enterprise, and all attempts at improvement, would have us believe, that agriculture has gained nothing by any departure from old practices. Nothing can be more pernicious than the precepts of these miserly drones unless it be their examples. A singular proof of what has been done in one, and a stimulus to persevere in other pursuits of the husbandman, may be seen in the case of the *increased average weight* of oxen, calves and sheep in the course of a century. In the year 1700, the average weight of oxen killed for the London market, was 370 pounds, of calves 50 pounds, and of sheep 28 pounds. In 1812, the average weight of oxen, in the same market, was 800 pounds, that of calves 140 and of sheep 80 pounds—the latter having increased more than three fold! Has this improvement in all the valuable properties and dispositions of animals for the food of man been accomplished without management! without skilful crossing of breeds? Without knowledge gained by reading, reflection and study? Without exhibitions to excite, and premiums to honour success? Without the aid of discussion and the light of science? Yet there are many amongst us of those numerous families, the "Hold-fasts," and the "Good-enoughs," who will ask you, who ever learned any thing about farming from study or from books? To see a farmer with a pen or a book in his hand, is in their opinion, ominous of bad management and ruin; and at a cattle show, where the premiums have been bought chiefly by contributions levied on merchants, lawyers and gentlemen, who are not farmers; you will see one of these poor spirited fault-finders, come and peep through or over the enclosure, and go away, preferring rather to lay out one dollar in still burnt whiskey, or to print filthy political hand-bills, than to save from dissolution a society established for the benefit of his peculiar calling. Thompson's Apostrophe to Philosophy, is, nevertheless applicable to knowledge in general; and is no where more emphatically justified than in the progress which has been made by scientific researches and illustrations in the pursuits of the agriculturist.

"With thee, serene Philosophy, with thee,
And thy bright garland, let me crown my song!

* * * * *

Without thee, what were enlighten'd man?
A savage roaming through the woods and wilds
In quest of prey; and with th' unfashion'd fur
Rough clad; devoid of every finer art,
And elegance of life."

☞GREEN RYE has been selling in the streets of Baltimore since the 20th of April—it now sells for ten cents a bundle, being a large arm full—that is for more than a third of a bushel of corn.

☞The superb horse JOHN HANCOCK will be sent back to Virginia, to be put in training, and will not stand, as was expected, in this neighbourhood. To see how far encouragement for him might be expected, it was requested that the names of persons wishing to send mares, might be left at the office of the American Farmer; not one has been so left. If gentlemen desire to have a thorough bred horse, of superior qualities, they have only to associate to the number of thirty—pay $50 each, and send to Virginia and get such a horse in ten days, and in two seasons they may get back their money or its worth.

☞The Editor begs to renew the request for the pedigree of Figure, and to ask also for the pedigree of Chesapeake—formerly the property of Mr. Gittings, of Long Green, and by him sold to Mr. Coleman of Lancaster.

The Editor will be much obliged to any gentleman for information on the subject of the following enquiries:

From the shortness of our crops and the low price of our staple in this state, the planters will have to resort to first principles, or evident ruin must follow. I have been spoken to by some of my friends to endeavour to procure a spinning machine, such as would answer for family use, and as I know of no one possessing the extensive knowledge that you do on such subjects, I have taken the liberty to ask you for information on the subject. It is desirable to combine cheapness, with strength, and as simple as possible, to be exclosively for coarse cloth, and if possible, to enable us to make our own cotton bagging with it.

We have had winter for the last month, our crops of wheat, which I never have seen more flattering, is entirely destroyed by frost, as is our corn, &c. We shall have to plant all our corn crops over, and I am afraid our cotton will share the same fate.

Your obedient servant,
FANSH. CARTER.

Milledgville, Geo. April 20, 1828.

☞The river at Wheeling on Saturday last was about fifteen feet above low water mark—falling.

☞Country produce has not improved in price since our last. Some things have declined a little. An effort was made to raise the price 12½ cents per barrel on Susquehanna flour—but it was not realized. Best wheat from that country, 92 cents; best from Virginia, 86.

LATE AND IMPORTANT FROM ENGLAND.

The ship Hamilton, Bunker, 31 days from Liverpool, arrived this morning: sailed on the 26th March. The editors of the Commercial Advertiser are indebted to captain Bunker for regolar files of London and Liverpool papers—the former to the 24th of March, the latter to the 26th, both inclusive.

The New Times of the 20th March, mentions that a rumor prevailed at the west end the day before, that the Duke of Wellington would proceed immediately to Russia, to confer with the Emperor on the affairs of the east. The same paper adds that there is no instance of such a step having been taken by a Prime Minister; but the mission of Lord Castlereagh, in 1814, was in some measure analogous.

London, March 24.—The stock of foreign wheat is now getting very low. There has been a petition handed round this day, and generally signed, praying that a clause be introduced into the new corn bill, to permit the wheat in bond to be converted into flour for the use of the colonies. Average price of wheat, for the week up to the 21st of March, 52s 4d.

RUSSIA, THE ALLIES AND TUAKS.

As we asserted on Saturday, it is now clear that the report of hostilities having commenced between Russia and Turkey, was quite premature. In addition to the accounts which will be found below, all of which concur in discountenancing the idea of an immediate war, the story is thus emphatically contradicted by the British minister:

In the House of Commons, on the evening of the 22d March, Sir R. Wilson asked if it was intended to sustain the treaty of the 6th July, and whether there had been any orders to prevent provisions being sent to the Turkish stations in the Morea? Mr. Secretary Peel said *there was no change in the views of government as to the treaty, and no notice had been received of any change in the Russian relations; or of any declaration of war by Russia against Turkey. When such intelligence arrived, it would be time enough to state the views of government.* The instructions respecting the Morea continued, and the attention of the admirals was called to them.

Liverpool Cotton Market.

Monday, March 24.

The cotton market has been more animated last week than for some time past, and an advance of 1-8d per pound has been obtained on American descriptions. Egyptians, however, are about ¼d per lb. lower. At a public sale on Friday, 280 bags Demerara and Berbice sold steadily at 7¼ to 8 1-8d for inferior to fair; 8¼ to 9 3-8d for good fair to fine. The private transactions comprise 6,540 Bowed, at 5d to 6¾d chiefly; 5¼d to 6¼d for middling fair to good fair; 1,750 Orleans, 5 5-8 to 7 1-8d; 3,720 Mobile and Alabama, 5d to 6¼d, chiefly 5½ to 5¾d; 400 Sea Island 12d to 16d; 250 stained do. 7d to 11d; 1,280 Pernambuco, 7¾ to 8¼d; 1,880 Maranham, 7¾ to 8d; 270 Bahia, 7½ to 7 7-8; 2,260 Egyptian, 6 3 8d to 9d, chiefly 6 5-8 to 6¾d; 30 Demerara 8d; 80 Bahama, 6 7-8 to 7¼d; 220 Surat, 3¾d to 4¼d; and 60 Bengal, at 4 to 4 1-8d per lb.—which, with those sold by auction, make a total of 18,470 bags, of which 2,000 bags of American and 1,500 Egyptian, have been taken on speculation. The demand continues steady, without any alteration in prices; the sales for Saturday and to-day amount to about 3,500 bags.

The Thorough Bred Horse
GILES SCROGGINS,

Will stand the ensuing season, commencing the 1st of March and terminating the 15th July, at Sampson Court House, N. C. and will cover mare at twenty-five dollars the season, discharged by the payment of twenty dollars at the expiration of the season—thirty dollars to insure a mare to be in foal. Mares sent to the horse will be pastured gratis; and fed on grain at twenty-five cents per day. Every possible attention will be paid to mares, but the subscriber will not hold himself responsible for any accidents or escapes.

Giles Scroggins is a beautiful blood bay, with black legs, mane and tail, with a most beautiful coat of hair; which evinces his great purity of blood. He will be four years old this spring; and is five feet three inches high. When he attains his full growth (which will not take place under two more years,) he will measure fully sixteen hands high, and be a horse of great weight and muscular powers. His parts are now very fine, particularly in his quarters, coupling, thigh and hock; and when he arrives at the full perfection of his form, he will certainly be one of the finest looking horses in this country, and eminently calculated to improve the stock of horses in this section of the state, as he combines and partakes more or less of all those fine and valuable crosses which judicious breeders of fine horses hold in such high estimation—I allude to Sir Archey, Bedford, Daredevil, Wildaire, &c. Much more could be said in praise of this high bred horse, but I leave it to the candor and judgment of all persons to look and decide for themselves.

Pedigree.—Giles Scroggins was got by Sir Archie, his dam by the imported horse Bedford; his grandam by the imported horse Daredevil; his great grandam by old Wildaire; his great great grandam by Apollo; his great great great grandam by Mercury; his great great great great grandam by the imported horse Fearnought; his great great great great great grandam by the imported horse Jolly Roger, out of Grinnell's imported mare. Bedford by Dungannon, (one of the best sons of the celebrated English Eclipse; his dam Fairy by Highflyer—Fairy Queen by young Cade—Routhe's Black Eyes by Crab, &c.

Daredevil was got by Magnet, (one of the best sons of King Herod;) his dam by Chrysolite, (son of Blank;) his grandam Proserpine, full sister to O'Kelly's celebrated Eclipse. Wildaire by the imported Fearnought; his dam by the imported Jolly Roger, out of the imported mare Kitty Fisher. Apollo was got by the imported Fearnought; his dam an imported mare by the Cullen Arabian, and her dam the noted mare Lady Thigh by Griswold's Partner, Greyhound, Curwen's Bay Barb, &c. Mercury was got by old imported Janus, out of Col. Byrd's (of Westover) imported mare Calista.

Performance—He won a sweep stake for three year old colts, $100 entrance, over the Lawrenceville course, Va. in the spring of 1827, beating at three heats, Capt. Harrison's bay bolt, by Virginian, and Mr. West's bay Filly, by Sir Archie. In May following, he won a sweepstake for three year olds, over the Tree Hill course, beating Dr. Selden's S. colt, by Sir Alfred, Mr. West's yellow filly, by Sir Archie, Mr. Bott's bay colt by Bolivar. Time, 1st 1m. 57s. 2nd 1m. 55s. The same spring he won the proprietor's purse of $300 over the Broad Rock course, too mile heats, at three heats, beating Mr. Ross's Blenheim, Mr. Bott's Phillis and Mr. West's Charlotte Pace, by Sir Archie. This was one of the finest races on record, and considering that Giles was but three years old, and the other two aged nags and first rate runners, proved him to be a colt of good speed and first rate bottom. In fact, no three year old colt ever made a better race for the distance and number of heats: Giles won this race in very handsome style at three heats. Charlotte Pace won the first heat, and Giles winning the two last. 1st heat, 3m. 56s. 2nd 3m. 53s. 3rd heat 3m. 55s. In the fall following, he was trained and run for the colt stake at Caswell C. H., N. C. This was a beautiful, interesting and hard contested race between Giles Scroggins, Capt. Harrison's Contention colt, and Mr. West's Mewhock; the latter winning the first heat and Giles Scroggins the 2nd and 3rd. Time 1st heat 1m. 56s. 2nd 1m. 55s. 3rd 1m. 57s. The next week he was started for the Jockey Club purse over the Milton course, three mile heats, against Capt. Harrison's horse Frantic by Director, and Turner's Carolinian, by Virginian. In this race he was unsuccessful, owing to the most wretched order, particularly in his legs—he saved his distance the first heat, and in the second, notwithstanding it was evident to every person that saw him run the race, that he was running on three legs, as he broke down early in the heat, yet he came in very handsomely, as the other horses only beat him a few yards—It was with great difficulty he was gotten off the tract. He thus terminated his racing career having in all his previous races done himself great credit, and beaten all or most of the first colts on the turf, and proved himself a colt of uncommon promise, if his legs had not failed him. It was the opinion of his trainer, Capt. J. W. Clay, that if he had remained sound in his legs, he would have made a first rate four mile horse, as he had repeated evidences of his good speed and great bottom—It is the opinion of all good judges in such matters, that Giles Scroggins is well calculated to improve his species, and justly entitled to a rank among the first rate horses of his day.

February 23, 1828. W. B. MEARS.

INDIAN QUEEN HOTEL.

Alexander Porter has taken the stand at the corner of Market and Queen-streets, Wilmington, Delaware, sign of the Indian Queen, where he will be happy to receive his friends and other customers; and promises to provide for their entertainment, and conduce to their comfort, in the most ample and best manner

The Stages for Philadelphia, Dover, Christiana Bridge, Newark, Elkton, and Frenchtown will hereafter leave this house daily, except the Dover stage, which leaves on Mondays, Wednesdays and Fridays.

Horses, Gigs, and Carriages of the best kind, will, as heretofore, be kept for hire.

Expresses provided to travel in any direction at a moment's notice.

VALUABLE PROPERTY FOR SALE.

The subscriber offers at private sale, until the first of September next, and on that day, if not sold (at public sale,) under a decree of the court of chancery, the following described property, situated in Washington county, Maryland. This property is a part of that rich and fertile tract of limestone land, known as General Ringgold's Manor, situated about six miles from Hagers-Town—measures by actual survey 1200 acres, with a fair proportion of good wood land. There is a never-failing stream of water running through the centre of the property, and has three or more good springs equidistant, so as to admit of division to suit purchasers. Attached to this property also, a complete Grist and Saw Mill; the former has just been put into complete and thorough repair by an able and experienced millwright, and is capable of turning out the best merchantable and country work, running three pair of stones. Also, a complete distillery, with every convenience attached thereto, and may, with the addition of an apparatus, be put into immediate operation with little or no expense. The additional improvements consist of three common dwelling houses, barns, stables, &c. It is unnecessary to give a further description of said property, as it is presumed those who may be disposed to purchase, will view the premises.

Possession will be given on the 1st day of April, 1829; or, if it would suit purchasers, the pending leases will be transferred on fair terms.

MARY RINGGOLD, *Administratrix.*
Georgetown, D. C., April 24, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No 4, Bowly's wharf.

Tobacco.—Scrubs, $3 00 a 6 00—ordinary, 2.00 a 3.00—red, 3.60 a 4.50—fine red, 4.50 a 5.50—wrapping, 5.00 a 9.00—Ohio ordinary, 3 50 a 4.50—good red spangled, 5.00 a 6.00—yellow, 6.00 a 9.00—fine yellow, 10.00 a 15.00—Virginia, 2.50 a 8.00—Rapahannock 2.75 a 3.00 Kentucky, 3.00 a 5.00.

Sales of tobacco the week past have been very limited, and still sought after—prices about the same as last week's report. Inspection for the week, 374 hhds. Maryland, and 53 do. Ohio

Flour—white wheat family, $6.00 a 6 50—superfine Howard-st. 4.75 a 4.87½; city mills, 4.50; Susquehanna, 4.12½ a 4 25—Corn Meal, bbl. 2.50—Grain, best red wheat 85 a 90 —best wt. wheat .95 a 1.00—ord. to good, .80 a .85—Corn, .35 a 37, no demand—Rye, .42 a 44—Oats, 21 a .23—Beans, .80 a 1.00—Peas, .55 a .60—Clover seed, 3.50 a 4.00—Timothy, 2.25 a 2.50—Orchard Grass Seed, 2.25 a 3—Herd's 1 00 a 1.50—Lucerne 37½ a .50 per lb —Barley, .80—Flaxseed, .75 a .80 —Cotton, Va. .8 a .9½—Lou. 10 a .13—Alabama, 9 a .12—Mississippi .10 a .13—N. Car. .9 a .10½—Geo. .9 a .10½—Whiskey, in hds 1st proof, .20 a 20½—in bls. 22 a 22½—Wool, com., unwashed, .15 a .16—washed, .18 a .20—3 quarter, .25 a 30—full do. .30 a 35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 00 a 6.50; do. trimmed, 6.50 a 7 00—Herrings, No. 1, bbl. 2.37½ a 2.50; No. 2, 2.25—Mackerel, No. 1, 6.50; No. 2, 5.25; No. 3, 4.50—Bacon, hams, Balt cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 a .7—Feathers, .26 a .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

April 25th, Captain Kirby's cargo of white corn, 646 bushels, from Chester river, Queen Anne's county, Md., sold for 30½, and 285 bushels yellow at 37½ cts.

April 26th, Captain Lynch's cargo, from Chester river, 291 bushels white, at 35.

April 28th, Captain Tilghman's cargo, 151 bushels, from do., 36 cts.

April 28th, Captain Pennington's cargo, from the Head of Chester, 263 bushels white, at 35 cts.

Marketing—Apples, bush. 2 00 a 2.50; Butter, lb. .31¼ a 37½; Eggs, dozen, 10; Turnips, bush. .37½; Potatoes, do. .50; Onions, do .50; Chickens, doz. 2.50 a 3.00; Beef, prime pieces, lb. .8 a .10; Veal, .8; Mutton, .6¼ a .7; Pork, 4.50 a 5.00; Shad, per pair, 18¾ a 25; Green Peas, per bush. 2 50; Radishes, per bunch, 4 a 6¼; Letture, large heads, 6¼; Cauliflowers, do. 25 a 37½; Parsnips, bushel, .75; Carrots, .75; young Ducks, per doz. 2.50 a 3 00; Turkies, 87½ a 1.12½; young Lambs, dressed, 1.75 a 2.00; do. Pigs, do. .75 a 87½; prime Beef on the hoof, 5.50 a 6.00; Sausages, per lb. .8 a .10.

Hay, per ton, $10.00; Rye Straw, 5.50 a 6.00; Cut Grass, per bundle, .10 a .12½.

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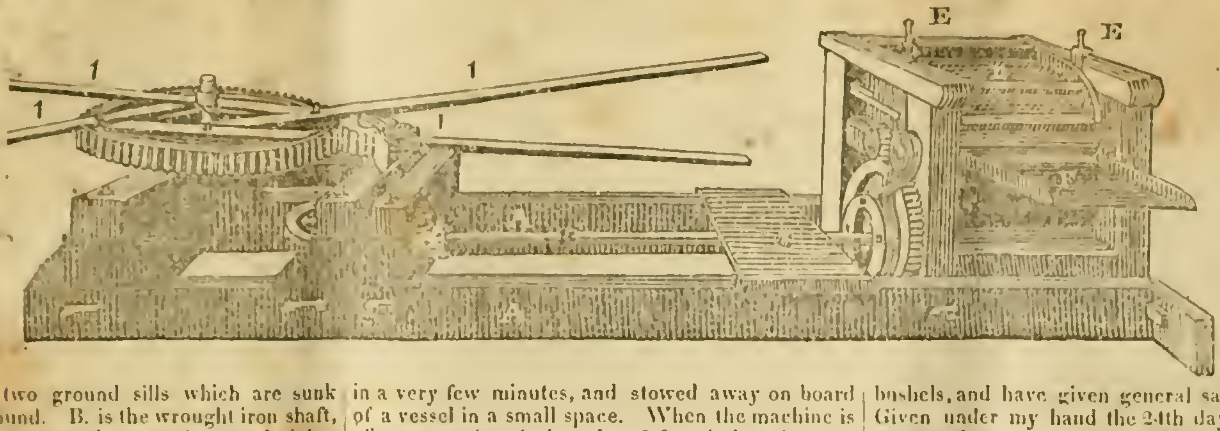
Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

S. COCHRAN'S PORTABLE THRESHING MACHINE,

For Wheat and other small Grain.

The great advantages this machine possesses over the machines now in general use, from its compactness, simplicity, and being portable, is worthy of the farmer's attention. Their being moveable from one farm to another, or on different parts of the same farm, convenient to the grain in shock, and there operated, *no house being required only for the storing of the threshed grain.* This method of getting out grain from the shock, the farmer will find far preferable to stacking, and attended with less loss of grain. With the additional expense of three or four horses to keep the machine in motion, he may thresh out his crop with the same force of manual labour that it would require to stack the same quantity of grain in the same time. This machine will answer for five or six farmers to own one of them, jointly, provided they will use it in rotation in threshing out their crops.



A A. are the two ground sills which are sunk level with the ground. B. is the wrought iron shaft, which operates the drum by cog wheel and pinion of square gearing. C. is a bridge for the horses to pass over the shaft. D. is a circular roof with a fluted iron rubbing plate, bolted on to the under side of it, which the wheat passes over, by the velocity of four beaters, and is discharged on the opposite side from the feeding table. E E. are the setting screws to the roof. F. is the feeding table. G. is two fluted feeding rollers, (cast iron.) 1 1 1 1. are the horse levers, which are bolted on to the master-wheel.

The Patent Portable Threshing Machine.

The subscriber wishes to call the attention of the Planters particularly, to the late improvement he has made on the above labour-saving machine His improvement consists in connecting the threshing power on to the end of the ground sills of the operative power; and operating the drum by a cog wheel and pinion of square gearing, in lieu of the large belt which has been heretofore used in operating the drum of all portable machines. This important improvement, combining with the simplicity of other improvements made in the construction of the operative power, makes them more compact, less liable to get out of order, and perfectly permanent when in operation. He feels sanguine in saying, that they are superior to any machine ever offered to the Planters, either in Europe or America, for execution, cheapness, and durability. It is extremely simple in its structure, nearly all its parts are of iron, perfectly portable; can be adjusted entire in a common wagon from one farm to another, and put in operation in one hour after it arrives at the place it is to be used, by the plantation hands. A cotton gin can be attached to the above machine without an additional expense, except the gin. Persons wishing to get Machines, will please leave their orders as early as possible, that they may be made against the threshing season commences.—The price of the machine is 235 dollars at the factory. A Corn Mill attached to them, that will grind from six to eight barrels per day, will cost 85 dollars in addition to the Machine. On hand, Cotton Gins, with single and double breast, made on the most approved southern plan. Self-feeding Straw Cutters &c. &c.

P. S. The above Machines can be shipped at a very small expense to any part of the United States where there is navigation to from this port, their framing being so connected by screw bolts, dovetailed tenons and keys, that they can be deranged in a very few minutes, and stowed away on board of a vessel in a small space. When the machine is all put together, it is only 18 feet in length and 3 feet 9 inches in breadth.

Orders for Machines by this mode of conveyance, the proprietor will attend, personally, to their being put on board of the vessel, or to any other mode of conveyance that may be necessary for their transportation.

N. B. The subscriber having a patent right of his improvement on the Portable Threshing Machine, secured in the Patent office, forewarns all persons from building machines embracing any of his improvements; and likewise all persons from using the same under the penalty of the law on patents, as prosecution will be used to the extent in either case.

SAMUEL COCHRAN,
Head of Mayo's Bridge.

Richmond, Feb. 18, 1827.

—

CERTIFICATES.

I do hereby certify, that I own one of Mr. Samuel Cochran's Portable Threshing Machines, built upon his late improved plan; which improvement consists in part by connecting the threshing power on to the end of the ground sills of the operative power, and operating the drum by a cog wheel and pinion of square gearing, in place of the large belt as heretofore. I threshed, during the last season, from 800 to 900 bushels of grain, clean from the straw, averaging from 150 to 200 bushels per day, with ease, to four horses and seven hands. It is perfectly portable, and can be removed from one place to another, and put in operation by the farm hands in three or four hours. I think it preferable to any I have ever seen. Given under my hand this 16th day of December, 1826.

Chesterfield. EDWARD E. ARCHER.

—

I do hereby certify, that I own one of Mr. Samuel Cochran's Portable Threshing Machines, built upon his latest improved plan, which improvement consists in part by connecting the threshing power on to the end of the ground sills of the operating power, and operating the drum by a cog wheel and pinion of square gearing, in lieu of the large belt, with which I am very much pleased. I threshed out my own crop, with three horses, that operated with ease. I am of opinion, from the experiment which was made with mine, that with four horses or mules, and eight hands, from 160 to 200 bushels might be got out per day in tolerable good wheat. I have threshed out my own and several of my neighbours' wheat, to the amount of 3500 bushels, and have given general satisfaction to all. Given under my hand the 24th day of Nov. 1826.

New Kent. JAMES CLOPTON.

—

Tree Hill, Dec. 28, 1826.

I do certify, that I own one of Mr. Samuel Cochran's Improved Portable Wheat Threshing Machines, with which I threshed a crop of wheat last season, of more than 1000 bushels. I believe this machine capable of threshing 200 bushels per day, clean from the straw, having myself threshed 180 bushels when the wheat was indifferent, without using any exertion. J. M. SELDEN.

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This is to certify, that I purchased of Mr. Samuel Cochran, in the year 1824, one of his Portable Threshing Machines, on his original plan, for my farm in Amelia county; with which I was so much pleased, that I purchased another the last season for my farm in the county of Chesterfield, on his late improved plan; which consists in connecting the Threshing box on to one end of the ground sills of the operative power, and operating the drum by a cog-wheel and pinion of square gearing, in lieu of the large belt, with which I am much pleased with its operation: it gets out the wheat with great facility and expedition, leaving less in the straw than any machine of my acquaintance; I have never attended to it more than a few hours in the day. I am of opinion that by proper management it will get out 150 bushels per day, with great ease, by means of four horses or mules, and eight hands. Given under my hand, this 8th day of Feb. 1827.

THOS. HOWLETT.

(From the Vermont Aurora.)

HEMP.

The cultivation of this valuable plant has not, until recently, engaged the attention of the American farmer, and that only on a limited scale in particular sections of the country. In Vermont and the northern parts of the state of New York, the raising of hemp has not, since the close of the last war, and then only by a few individuals, been attempted. The causes which have generally operated to retard its introduction, are, upon a correct investigation, attributable to the hardship and expense of dressing it, rather than the difficulty in raising or the want of a profitable market for vending whatever amount of it may be produced. The crop raised the last season in several counties upon the North river in New York, and some time since on the lands near Onion river, in Vermont, prove incontestibly, that our soil is of the first order for a large growth and easy cultivation. Perhaps no vegetable, except grass, takes and grows more readily than hemp. In Europe, where hemp is extensively and profitably cultivated, the climate corresponds with the northern parts of the United States: hence it does not require to be acclimated to a high northern latitude in order to ripen and coat the first year's planting. The comparative advantage of raising hemp, may be easily estimated on calculating the quantity produced on an acre, the price for which it sells in market, the expense for seed, the use of the land, and the value of the labour in raising the crop. If the land is fresh and well prepared, half a ton on an acre may be a fair estimate; but if it is rather inferior, an acre will yield upon an average, one-third of a ton; and the clearing it of the seed, when taken green from the field, will cost one third part of the product, if done by a machine. Now, if half a ton can be raised on an acre, and it will cost one-third of this quantity after it is cut and removed to the manufactory to fit it for market, that will leave to the grower six hundred and sixty pounds, which will sell, if of a middling quality, for sixty-six dollars—that is at the rate of two hundred dollars per ton. The seed required to sow an acre, in the present scarcity, will cost eight dollars; the use of the land six dollars; the expense for labour in sowing, gathering and conveying the same to the place of manufacturing, will probably amount to ten dollars more, making an aggregate of twenty four dollars, for which the grower will receive between sixty and seventy dollars. It is evident from this statement, that the cultivation of hemp, so long as it bears a price any thing like the present, is the most profitable crop that can be raised. The common produce of the fields (taking into the account the uncertainty of the seasons,) and the present reduced prices, do not more than pay for the labour in raising; leaving the finances of the farmer, at the end of the year, not more, if so prosperous as they were at the commencement. But if the cultivation of hemp be generally introduced, the northern states will be able to compete, in the productive opulence of the field, with the cotton growing states in the south. The embarrassments of commerce will then be removed and the band of industry and frugality will receive the rewards of plenty. Russia and the north of Europe have been abundantly supplied upon their frosty mountains and arid plains, by raising this productive vegetable, and should it be ever so generally cultivated, there is no probability of overstocking the market. The quantities used in different kinds of business, and particularly for ropes and canvass in shipping, are almost incalculable. The farmers in this vicinity will make a fair experiment this season, of the utility in raising it, whether it answers public expectation or not. Considerable quantities will be sowed and planted, and a machine for cleaning it is immediately to be erected on the falls in this place. Should the business be prosperous, the farmers of Vermont may congratulate themselves upon the value of the acquisition and the prospect of profitable employment.

A. Z.

LARGE OX.

Pittsburg, Pa. April 25.

An Ox, the finest and largest we have seen, raised by the Harmony Society at Economy, was slaughtered here last week, and sold in our market by Mr. John O'Hern, victualler. The weight of the animal alive was 2556 lbs. When dressed and quartered, the

Beef weighed, ...	1846 lbs.
Hide, ...	190
Suet, ...	140
	2176

IMPROVED DURHAM SHORT-HORNS.

(From the Rev. Henry Berry's Pamphlet.)

Dairy and Feeding Properties.

The instances which are given as to milk, were obtained by the author on the spot.

The cows recorded, are the property of J. Whitaker, Esq., of Greenholme, near Otley, and are of the most esteemed blood. (*see Herd Book.*) They have given, and give, twice a day, as follows:

Yellow Rose, at three years old; four gallons two quarts, twice a-day.

Yellow Rose, at four years old, four gallons three quarts, twice a-day. [Yellow Rose the grand dam of Memnon—MEMNON, MALCOLM, GLOUCESTER, three bulls—YORKSHIRE BELLE, Desdemona, Betty, Volante, four heifers, imported by Col Powel.]

Red Daisy, four gallons, twice a-day. (*She is the grandam of Desdemona, and the grandam of Betty, on the male side.*)

Magdalena, upwards of four gallons, twice a-day.

Wildair, four gallons, twice a-day. (*Dam of Betty.*)

Western Lady, three gallons two quarts, twice a-day. (*The dam of Malcolm.*)

Venus, sixteen years old, three gallons one quart, twice a day. (*The grandam of Volante.*)

Alfrede, three gallons, twice a-day. (*The grand-dam of Gloucester.*)

Adela, first calf, three gallons, twice a-day. (*The dam of Gloucester.*)

Yarm, three gallons, twice a-day, (*The dam of Yorkshire Belle.*)

These cows are steady milkers, possessing great inclination to fatten, and Mr Whitaker cannot be too highly complimented on his successful exertions to combine the two qualities. The remainder of his stock will be found by no means contemptible as milkers; but it is thought unnecessary to remark upon any ordinary quantities.

Without entering further into particulars, this subject may properly be dismissed with a remark of Mr. C. Collings, that the *Duchess* and *Daisy* tribes, with whose merit as grazier's stock, the public are well acquainted, were all good milkers, possessing that valuable *union* of qualities, of which it is thus obvious every breeder of Short horns may avail himself, who chooses to make it the object of his care.

It remains for the author to remind his readers, that it is of the *Improved* Short horns he writes, and not of the general herd of cattle, which are sold as Short-horns, from the northern districts.

And it may be added, nor did he allude to those sent to America without pedigree, or claims to the properties of the high bred race.

A Short horned steer of Colonel Cooke's, fed on *potatoes and straw*, was slaughtered when two years and twenty two days old. His four quarters weighed 1008 pounds.

—

Extract of a letter from William Plummer, one of the Judges of Fat Cattle, of the East Lothian Agricultural Society, to the Editors of the Farmer's Journal.

Mr. J Rennie presented at the Highland Society's competition of fat stock, in November last, several of the Improved Short-horn breed, which also carried the premiums for symmetry and fat. Two of these I purchased, viz:—one aged two years and four months, four quarters weighing one hundred and fifty three stones seven pounds, or 2149 pounds; and one aged three years and six months, four quarters weighing one hundred and sixty-nine stones seven pounds, or 2373 pounds. The last mentioned had (besides,) thirty stones one pound, or 421 lbs. of rough fat, all Smithfield weight.

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(Extract from Hints for American Husbandmen.)

The Pennsylvania Agricultural Society, at their meeting in 1825, notice, particularly, the importance of improved breeds of live stock, and unequivocally declare the improved Durham Short-horns to be "the race of neat cattle which experience has proved to be superior to all which we have ever seen."

—

The committee on neat cattle, at the Pennsylvania show of 1824, stated: "We cannot avoid expressing great satisfaction at the decided improvement which has been made in the stock, by the introduction of 'improved Durham Short-horns,' whose blood can be traced in nearly all the breeding animals, which were distinguished as best fitted for the general purposes of the country, by uniting, with fine forms, the requisites for the *dairy* and the *stall*."

THOMAS SMITH.
THOMAS SERRILL.
MATTHEW ROBERTS.
RICH. B. JONES.
C. CHURCHMAN.*

—

Maryland Cattle Show.

June 1, 1825.

The committee on neat cattle, report--That they award to Col Lloyd, for his bull, Champion, the premium, "as the best full blood improved Short horn bull. Having heretofore received a discretionary premium on his arrival in this country, his owner generously declined entering him for the premium to be awarded to the best bull of any breed--believing, we presume, with this committee, *that to be the best bull of the improved Short-horn blood, is to be the best bull of any breed.*"

EDWARD N HAMBLETON.
ROGER BROOKE
WM CARMICHAEL.
CHARLES K DORSEY.
REUBEN M. DORSEY.
JOHN KELSO

At the Brighton and Worcester Shows, Short-horned cattle received the highest commendation and the largest rewards.

At four cattle shows held by the Pennsylvania and Philadelphia Agricultural Societies, *fifty-six animals of Short horned breed, took premiums equal to* $1160, although at one of the shows, the principal herd of Short-horns did not contend for a prize. It is believed that in no instance has *any thorough-bred* individual of the Improved Short horned breed been beaten by any animal, of any other breed, at any show in the United States.

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From Bailey's Survey of Durham, made by order of the British Agricultural Board.

As a proof of the estimation in which this breed of Short-horned cattle is held, not only by skilful judges from distant parts of the empire, *but in its own immediate neighbourhood*, it is merely requisite to adduce the catalogue of Mr. Charles Colling's sale, which took place at Ketton, on the 11th of October, 1810, in consequence of his having declined business.

Mr. Charles Colling's sale of Improved Short horns.

COWS.	Guineas.		Dollars.
Peeress, 5 years old,	170	or	793 33
Countess, 9 years old,	400	or	1866 67
Celina, 5 years old,	200	or	933 33
Johanna, 4 years old,	130	or	606 67
Lady, 14 years old,	206	or	961 33
Laura, 4 years old,	210	or	980 00
Lily, 3 years old,	410	or	13 33
Daisy, 6 years old,	140	or	53.33
Beauty, 4 years old,	120	or	60.00
BULLS.			
Comet, 6 years old,	1000	or	466 67
Major, 3 years old,	200	or	93 33
Petrarch, 2 years old,	365	or	170 33
Alfred, 1 year old, by Comet,	110	or	51 33
Duke, 1 year old, by Comet,	105	or	490 0

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*All extensive graziers or dairy-farmers.

Great Product of Corn and Hemp—on Two Acres.

J. S. Skinner, Esq. *York, (Pa.) April 28, 1828.*

Sir,—Permit me, through the medium of the American Farmer, to communicate the produce of two acres owned and cultivated by Jacob Dritt, Esq. of this borough.

The lot lies in the neighbourhood of this town, and the statement has been given by its owner, a gentleman of respectability and character. It was cultivated in Indian corn and in hemp last season. The corn was planted in drills about two and a half feet apart—the hemp seed was sown at the same time—the plants were thinned about two feet apart. These two acres produced one hundred bushels of corn, and forty five bushels of hemp-seed. This seed was sold at two dollars and twenty-five cents per bushel. The whole expense of cultivation and gathering did not amount to more than twelve dollars. Some of this seed was purchased at Baltimore by Sinclair & Moore. This lot had been cultivated the year before in corn and hemp. The corn was better the first year, but the hemp not so good in consequence of the season. As soon as the female plants were discovered to be in seed, the male plants were removed. The farmers of this county are beginning to raise hemp in considerable quantities. The result has been very profitable. Several acres of land put in fine order, if cultivated in this article, are really more productive than many poor farms tilled in wheat and corn.

Some beautiful samples of cotton have been shown here. It was raised in Washington township, York county. The seed was distributed by General Forman, on the Eastern Shore of Maryland—some of it was obtained by me, and given to our farmers for experiment. Yours, &c.

WM. B. DONALDSON.

Against forcing *large Manufactories into existence by Law.*

J. S. Skinner, Esq.

Sir,—Every candid man must approve of your rule, to publish, impartially, on both sides of questions of national importance, such as the policy of government *protection* to domestic manufactures. The essays you have published on the adaptation of slave-labour and other circumstances, in the southern states, to the manufacture of domestic fabrics, especially of coarse qualities, have attracted much attention and have awakened the people in those states, to their capacity for self-supply, if *government* should so far interfere in their private concerns and the employment of their labour and property, as to force them into that channel. For myself, one objection occurs, that I have not seen insisted upon, to the policy of compelling us to build up large factories. It is this: that for the number employed, there are fewer employ*ers* and more employ*ed*—fewer *masters*, and more *servants*, than in any other business in which human labour can be engaged, unless it be in the *army* or the *navy*. There is, too, between the employer and the employed, as great a disproportion in *circumstances* as in *numbers*. Look at the factories in the neighbourhood of Baltimore! you will find that the *owners* bear to the labourers, the proportion of *one* to *two* or *three hundred!* Not so in any of the operations of agriculture or commerce. In these, capital and compensation are more divided and more equal. The wealthy merchant, if carrying on extensive commerce, must employ many captains—many mates—many supercargoes, &c. His money, paid for wages, is divided in a way that diffuses more independence, more respectability, more happiness. The farmer, if in a free state, cultivates his land by his own and his childrens' hands—the hirelings are few, and live, in many cases, as well as, and on a footing, in that respect, with their employer. Not so in a slave-state to be sure, but that is a *different question*, and has nothing to do with this discussion, though it would not, perhaps, be difficult to prove that the condition of slaves, who are well fed and clothed, and humanely treated, as almost all slaves now are, who are relieved from all care and responsibility to provide for themselves and their progeny, is not much worse than that of the white *operatives* of a large manufactory, who are compelled to rise, eat and go to bed, by the ringing of a bell, with as much regularity as *on board of a ship, or in a penitentiary*. There is, too, as it seems to me, an essential difference between the manufacture of necessaries, such as hats, shoes, saddles, &c., which have been hitherto encouraged, and laws for forcing into existence and upholding, whether or not, manufactories to be conducted on a large scale, employing from 100 to 500 people, to be *commanded* by *one or two persons*, where immense capital is to be employed, which *very few* can command, and where the hundreds that operate must be *day labourers*, depending, forever, on their *daily wages* for their *daily bread!!* In the case of hats, shoes, saddles, bridles, tailoring, &c., there are a *great many masters*, and a large proportion of apprentices. The business requires small capital—almost any smart, respectable journeyman may set up for himself—the trade is *divisible*, if I may so say. There is amongst those engaged in them not one-tenth part of the *disproportion* of condition and circumstance, that there is in the large factories. There is a much more equal distribution of independence of spirit and of property. In agriculture and in these divisible manufactories, a state of society exists, too, which insures a much more *pure and independent exercise of the elective franchise*, on which the existence of our government depends, than can be expected where several thousand persons, as in this neighbourhood, draw their subsistence from one dozen employers. I do not mean that these employers, as they are *known to us*, would pervert or corruptly exercise the authority which circumstances have conferred upon them, over those in their service. As far as they *are known* to me, I have generally the highest opinion of their patriotism and liberality; but as politicians, framing a system for the public good, we must look to *principle*. If man were perfect, there would be no use for government. We might get rid of the whole machinery and all its restraints and expense. It is, at best, a necessary evil; but since we must have government, let us guard against the abuses which may be practised, and of all the means that were ever devised to prevent men from abusing authority, the best is *not to leave it in their power*; and I repeat, that nothing can conduce less to the dignity and the comfort of a people, and nothing can more endanger their liberties, than such a system and policy as necessarily fosters the greatest possible inequalities—creating few masters and many servants—where the guineas are secured, *by law*, to the strong boxes of the few, and the pence are scattered to the scrambling multitude. We have been often asked if it were not for her protecting system, where would now be the power and the wealth and the glory of England? But, this has always appeared to me to be a most unhappy illustration for the argument of those who employ it, talented and patriotic as they are admitted to be; for of all countries on the globe, I would turn most emphatically to England, as the theatre where the state of society and the condition of the people, prove that the existence of large manufactories, where capital is unequally divided, and where *individuals* employ and control *thousands*, poverty, crime and wretchedness, in every form, must ensue. It is openly avowed in parliament, that their elections are carried by bribery. That large sums are placed in deposite for the *avowed*, publicly proclaimed purpose of buying votes. In that country of power, and wealth and glory and large manufactories and prohibitory duties, it is proved by incontestible documents, that about every twelfth person is on the parish, and theft is committed and the jail sought for, as the *means of bettering the condition* of the man grown, and a refuge from starvation for the rising generation. I am far from decrying; no, I know not whether most to admire or commisserate the English nation—of all nations in the world, possessing once, the greatest share of honorable pride, courage and fortitude; but now, beaten to the very earth by *bad legislation*, and an abuse of institutions, originally *good and free*—by laws that have a tendency to make the few richer and richer, and the many poorer and yet more miserable—of whom it has been well said by the same writer, that "Alfred could hang bracelets upon the twigs on the road side without the risk of their being stolen." Let us be warned by their example. In the abstract, and almost without reasoning, it will be safe to countermarch a nation, in regard to whom the following part of a letter, recently addressed to the Duke of Wellington, is believed to contain little exaggeration:

"In setting about to describe to you the state of your concern, let me, as a short and plain way of putting the matter before you, ask you some plain questions.

"1. Do you know, that the sums annually paid on account of the debt and the dead weight; that the sums annually paid on these two accounts alone *exceed in amount the amount of the whole of the rental of the kingdom*, as ascertained in 1804, when that rental was *one-third*, at least, higher than it is now?

"2. Do you know, that if all the real property, all the land, houses, trees, mines, canals, fisheries, roads and bridges, were sold by auction, the sum for which they would be sold, (suppose it to be in due proportion to the rent) would not pay off the debt; but would still leave two or three hundred millions due to the bond or fund holders?

"3. Do you *know*, that the debt has, from the day of making the peace, to the present day, gone on steadily increasing, instead of diminishing; while all the lands, houses and other real property, are already mortgaged to the bond or fund holders, for more than the whole of such property is worth.

"4. Do you happen to know of any *other* country that is, or that ever was, in a situation like this?

"5. Did you ever before hear of a country, the law-givers of which entertained the question, and even discussed it, whether and how, they ought to go to work *to get a part of the people out of the country*?

"6. Did you ever before hear of a country, to keep out flocks of the paupers of which, other nations were compelled to pass laws, somewhat similar to quarantine laws, as is now the case in America, which has armed its port-officers with power to punish those who bring in English paupers?

"7. As to Ireland, it seems to be allowed, that that wretched people are matchless in misery; but do you know, that bread alone, or potatoes, is the common food of the working people *in England*; in the country of "roast beef?"

"8. Do you know, that *thefts* have increased in England, and are constantly increasing, in a degree that must convince every man of sense, that there cannot, without a speedy change, be, in a few years, any safety for property left?

"9. Do you know, that the *mere children* of this country have taken to thieve, and in such numbers, that the magistrates are calling for *new powers*, and for *dispensing with the trial by jury*, in order that they may be able to put a stop to this evil?

"10. Do you know, that notwithstanding the heavy poor rates, the poor are so badly fed, that they, in numerous cases, ACTUALLY SEEK TO BE PUT INTO JAIL, IN ORDER THAT THEY MAY GET BETTER FED?

To enumerate all the evils, to lay before you a full description of the state of the country, would demand a large volume; and yet I must call your attention to the *horrible increase of crime.* This has been acknowledged in formal statements by magistrates assembled in Quarter session. The Warwickshire justices have resolved to petition parliament to take means against this crying evil. They state that notwithstanding the careful classification of prisoners in our jails, and the *means of education being generally diffused*, that crime has increased, and is increasing in a most alarming degree. This is the grand criterion. That state of things which beholds the least quantity of crime, is the best state; and if this be true, how horrible is progress in the road to evil! Another odious feature in this increase of crime is, that it increases most rapidly amongst the *youth*, and even amongst the very *children.* In several of the counties, *theft* is beginning to rival *pauperism*, in point of *parochial expense!* There are already a fund-holder debt, a dead-weight debt, a poor-rate debt, and to these there now seems to be about to be added a *theft debt*—for this thieving imposes a heavy burden upon the land already, while every one must see, that it is impossible that it should not increase at an accelerated pace. This is one of the great matters which it is your duty to attend to. It is perfectly notorious that, during these sixteen years, there has been a continual boasting about the "improvements" in the criminal law: it is also notorious that millions have been expended on penitentiaries, asylums, and all sorts of receptacles for the reformation of juvenile offenders. The boast rings incessantly in our ears of the progress of education amongst the labouring classes; Sir Francis Bardett cries up the "march of mind;" Mr. Brougham tells us, that "the schoolmaster is abroad;" Mr. Peel boasts of the "vast improvements of the age;" and, while all these have been going on, crime has increased in almost a four-fold degree in the space of only sixteen years, till, at last, it has found its way amongst even the children of a few years from their mother's breast; and we may, without much exaggeration, say, that we have a rising generation of *thieves*, having, in all probability, more juvenile thieves than there are thieves of all ages in Spain, Portugal, France, the Netherlands, Switzerland and Holland! And this, too, in a country that formerly justly boasted of its honesty, and that cannot possibly have undergone a change so great as this, without some tremendously *efficient cause.* Mind, my Lord Duke, the cause is this: *The wretched state of the country is such, that our jails now are infinitely more comfortable, and the food allowed, much more certain and palatable than what* NINE *out of* TEN *of its inmates enjoy at their own homes; and thus their condition is* IMPROVED *by the very means employed as a punishment!*"

The annexed extract from the London Times of the 20th March, indicates a strange sort of national prosperity.

"The paper we allude to, is a return of the funds levied by parishes under the poor-rate system, throughout England and Wales, for the year ending March 25, 1827; of that portion of the gross sum so raised, which has been expended for the *relief of the poor.* We grieve, and our sorrow is mingled with no slight degree of alarm, that the poor-rate should, during a year not marked by any very general privation or calamity, have amounted, at the end of it, to almost *l*7,800,000. This, in the thirteenth year of peace, and after the necessity of reforming the poor-laws, had been brought repeatedly and most earnestly home to the attention of the country gentlemen of England. An aggravation of the evil is, that, as compared with the preceding year, the poor-rates had been increased by *nine* per cent., or about 700,000 pounds sterling.

"Why, fifty years back, the entire revenue of Great Britain, fell short of the sum now raised for the maintenance of her paupers, and of those who *manage them.*" AGRICULTOR.

LUCERNE.

J. S. Skinner, Esq. *April* 30, 1828.

Dear Sir,—You are now, I see, upon lucerne. I have often thought of a lot of lucerne I once saw at Mr. Charles Yates', of Fredericksburg, 1781, who I breakfasted with in May that year, and after breakfast, he and Colonel Willis, (father to Colonel Willis, of the army,) went with me to look at his lot of lucerne. He said there were about two acres, and that it fed two cows and two teams of horses from the second week in May, till sometime in October. It had been drilled in land well prepared eighteen inches asunder. The plants appeared to me to be about three or four inches apart in the rows. Mr. Yates told me where they were too thick, he had drawn them and planted them where they were thin; that the leaf was very troublesome the first and second year to keep clean from other grass, but that since that, he only run a shovel-plough between the rows in the spring of the year two or three times, then a light harrow, and when he began to cut the latter, spaded up the ground on the side of the cut row, and that he had this regularly done every day; that he would rather have it, or he considered it as feed for stock equal to one hundred and twenty bushels of corn. I never saw any equal to it, except some I had, and that was only four rows in my garden, about twenty feet long, and at that time a hobby with me. Mr. Yates' ground was a sandy loam—the lucerne seven or eight years old, and not a sprig of any other grass to be seen.

N. B. I forgot to say that till it was examined, it appeared to have been sowed broadcast, being so tall and thick, that the space in the rows could not be seen, except where it had been cut but lately. I recollect, at that time, sprouts and lettuce were not to be had. People did not then turn their attention to such things, and the lucerne, where it was fresh sprouted, about three inches long, was used as sprouts, and I eat it every day there with bacon, and sometimes as spinach, with eggs. T.

ON SHEEP HUSBANDRY.

To the Editor of the American Farmer:

Sir,—Though I do not farm the poorest land in the United States, still I much wish to see, at this time, a profitable mode of sheep husbandry, or any other farming, whereby a man can make ten per cent. on the capital invested; and as my gazetteer does not tell me where Ravensworth is located, will you, Mr. Editor, be so good as to state this fact;—and if the author of that communication would also favour the public, through the medium of the Farmer, with answers to the following questions, and any other information he may think proper to communicate, he would much oblige, at least, one of your readers, who apprehends that constantly folding so large a flock, on so small a piece of ground, would ultimately deteriorate its size and value.

What blood is the Ravensworth flock? and what proportion of it dies annually? What proportion of it is ewes? How many of the aged ones are fattened off every year? and what is their weight when fat? and what proportion of it is tallow? What is the average loss of their lambs? Are any of the lambs sold to be butchered? and if so, what proportion? and does the buyer, or proprietor, select them? and what is their weight? and at what period are they sold? At what age are the wethers fattened? and what is their weight when fat? What was the weight and age of those fifty wethers, mentioned as being the best muttons their owner ever saw? and were they fattened on the turnips sown before the first September, or on the wheat sown on the lands folded after that period? which produced twenty-two and an half bushels of wheat to the acre, the next year? and of what size was that piece of land? The author is not very clear in this part of his letter, What number of acres of pasture was required to fatten these wethers? and had they any other food than pasture? and had they been regularly folded with the other fattening sheep and lambs, as recommended. As it is not easy to comprehend how the author fattens his 400 muttons. Half an acre of oats and ruta baga turnips, every four days, for two months, in addition to their common pasture, does not appear to be sufficient feed to fatten 400 muttons, and a similar number of lambs to pasture with them. Are the man, woman and boy, free white people, or slaves? and if the latter, do not they require an overseer to compel them to take care of the flock, and raise all the cropping mentioned?

If the author had not stated, that he had been pursuing this mode of sheep husbandry on five farms, for many years, it might be apprehended, that 700 acres of the poorest land in our country, would not have afforded sufficient pasture for 1,000 old sheep, and four or five hundred lambs.

As I am very desirous to thoroughly understand a mode of sheep farming, so new, and strongly recommended, I trust I shall be pardoned for asking so many questions respecting it, as every planter or farmer, now a-day, finds it necessary to think of some new mode, whereby he may make all ends meet properly, at the end of the year.

Inquirer.

HORTICULTURE.

CAPE BROCOLI.

Directions for the cultivation of the Cape Brocoli, extracted from Wilson's Economy of the Kitchen Garden, now in the press.

This is one of our most delicious and valuable vegetable productions. In point of quality, its flowers in this country are, by good judges, I believe, universally allowed at least to equal, if not surpass those of the cauliflower. And what adds so much to its value, is, that its culture is as easy and simple as any common cabbage. It is not many years since it was introduced into this country, and only about seven or eight years since its proper mode of culture was correctly understood.

Much depends upon obtaining the right sort of seed; for it has been pretty well proved by experience, that there is no dependence on the success of any sort except that which is denominated the Purple Cape Brocoli. If the seed is sown too early, the plants arrive at maturity before the heat of summer is over, and often do well; for in August they cannot flower much, and by having to remain in a stationary state after arriving at maturity, when the proper season arrives, their having to remain sometime dormant seems to destroy their vigour, and their produce of flowers, if any at all, are very inferior. And if it is sown too late, the cold attacks them before they attain that strength and firmness which it is necessary for them to possess, sometime before the beginning of frosty nights.

The last of August, then, is the proper time for the plants to arrive at maturity; and for this purpose the seed should be sown on any bed or border of common garden soil, on the 15th of May. This, and most other seeds sown at this season, should be trode in with the feet, and the bed smoothed lightly over with a rake. By the beginning of July the plants will be in fine order for setting out. It would not be advisable to set them out before July, for they do best when the plants are strong and of good size. So in the first week of July, prepare your ground for the plants. I have raised good crops of them both on light and heavy soils; but it is of no use to plant them on any soil, unless it be in good order and well manured, and in this case they will do on any ordinary garden ground, either old or new, although this last is their favourite. Let the ground, at all events, be well manured and well dug, set the plants out in two rows, two feet and a half apart, and two feet distant in the rows. It is seldom the black grub meddles much with plants set out so late in the season as this; but they must be carefully examined every morning, and wherever any are seen cut off, the grub must be hunted and killed, and the vacancy filled up from the seed bed, in which a few plants should always be left for reserve.

The ground must be kept constantly loose and clear by frequent hoeings, and towards the end of August some of them will likely begin to flower. In the beginning of September, more will begin to show, and from the middle of the month until the middle of November, they produce one continual succession of flowers. The degree of frost they withstand, without sustaining the least injury, when they are in the highest state of flowering, is astonishing. The most singular characteristic of this plant is, the great length of time which is contained between their first beginning to flower and their final termination; and that too from the same seed, sown at the same time, and the plants all treated precisely in the same manner. Whatever plants may remain at the setting in of a settled frost, should be taken up and laid in a garden frame, as directed for fall cauliflowers; and I do not think that one in a thousand would miss flowering in the course of the winter. I have frequently flowered the remainder of my whole crop in this way, and since the seventh day of September last, I have never been one day without some plants in a flowering state; and at present, (Feb. 1828,) there is no appearance of the stragglers, I laid in a frame in December, stopping their blooming career.

I have had the last plant in my flower crop in April, and all things considered, I am convinced that this is one of the most valuable garden productions (the rota baga not excepted,) of any we are yet acquainted with. The mode of managing it, in order to obtain good seed here, appears to be a little more precarious, nor does it appear certain whether we shall ever be able to raise enough to prevent us from having to apply, as at present, to England for it. Although we are progressing bravely in our horticultural improvements, yet much remains to be achieved by future exertions.

[*N. Y. Farmer.*

AMERICAN WINE.

The following letter to Major Adlum, from a gentleman widely known for his labours to promote the cause of practical science, is but a just tribute to a man who has successfully attempted to prove the practicability of adding an important staple to our country. Already we rival England in her manufactures of wool and cotton. We shall soon compete with France in the culture of wines and silks.

[*Nat. Intel.*

Washington, April 25, 1828.

Dear Sir,—I have finished the two bottles of the Bland and Catawba grape wines, which you left with me at my desire, and pronounce them excellent. Under the disadvantage of want of age, it was pleasant to the taste, but, when a few years old, it cannot fail to be delicious. By way of experiment, I drank three glasses at a sitting, (an unusual indulgence,) and was gratified to find, that, while it gave tone to the system, and excited the most agreeable sensations, there was a total absence of heat, which is so generally perceived, after the use of a similar quantity of the strong wines of Europe, by the invalid, or those who do not make it a rule to indulge in them after dinner. I shall think it a duty to recommend your wine, to those who drink wine solely "for their stomach's sake, or often infirmities," and feel satisfied that they will thank me for the prescription.

With sincerest wishes for the prosperity of your vineyard, I remain, respectfully,

JAMES MEASE.

John Adlum, Esq. *Georgetown, D. C.*

INSECTIVOROUS BIRDS.

These are, to the farmer and gardener, of great value. They were designed by the Creator to check the too great increase of insects; and no farmer ought to suffer them to be wantonly destroyed on his premises. The number of insects destroyed by the robin, swallow, sparrow, mock bird, and other small birds, is astonishing. One little family will destroy several hundreds in a single day. Some little time since, a pair of these small birds built a nest on a lilac, which grew close to one of my windows. In the time of incubation, there was a long and severe storm, and a strong wind. The eggs were in danger of being thrown overboard by the writhing of the bush. Conscions of this, the female kept on the nest to prevent any accident which might follow on her leaving it, to collect food. Her mate, like a good provider, was busily engaged during the day in collecting food, (insects) which he carried to his companion, and she received it with apparent affection. This circumstance excited particular attention; and of course this little society was closely observed. In a short time the eggs hatched; but from the roughness of the weather, or tenderness of the brood, the female chose not to leave the young. During this time, the male, with surprising industry, brought small insects, in the larva state, to the nest, but was not suffered to feed the nestlings. The female received the food, and divided it among her little charge. When the young had gained sufficient strength the male was permitted to feed them; and from this time, both parents were mutually and incessantly, (by day) employed in collecting small insects from every quarter, and on a moderate calculation, to the number of aboot seven hundred in a day.

One great cause of the increase of many insects, so destructive to vegetation, is the decrease of those little friends to the agriculturist. Should a few of them innocently trespass on the property of the farmer, to the amount of a few cents, let him remember that he is greatly indebted to them for services rendered, and not wage a war of extermination.

They are not merely useful in destroying insects, for they call the farmer and the gardener to their business, cause the groves to resound with music, and usher in the morning with melodious praise.

Mansfield, March 27, 1828. R. GREEN.

SILK—INQUIRY.

Mr. Editor,

Permit me to inquire, through your valuable paper, whether, if any one in this neighbourhood should raise a crop of Silk, he could readily dispose of it; at what price, and to whom? It is highly important, especially to those who intend (as I do,) to go considerably into the production of that article, to be informed how—where—to whom—and at what price they will be able to obtain a market for it.

A Subscriber.

To Preserve Fruit Trees from Ants.

"After freeing the trees of them, lay on the ground about the foot of the tree, some powder of stave's-acre, which will prevent the ants ascending the trees."

[*Forsyth.*

LADIES' DEPARTMENT.

MANAGEMENT OF CHILDREN.

(From Kennedy's Instructions to Mothers.)

Frequent yielding to the powers of drowsiness, increases the disposition to it, and creates an absolute exigency for its being indulged;--the habit of long watching, has the effect of enervating the whole system, and of gradually inducing a state of fatal insomnolency:--It is, therefore, in all respects recommendable that children be trained to the salutary practice of keeping themselves awake during the day and sleeping in the night, of going soon to bed and rising betimes in the morning; but, in early infancy, it is indispensable to the young one's welfare, that it be much accustomed to enjoy the invigorating tranquility of repose.

When rightly tended and kept healthy, by being suckled after the manner natural to their condition, infants go to sleep readily, and their inclination to it experiences regular returns; they do not, therefore, stand in need of rocking in cradles, nor require having themselves subjected to any artificial tumblings whatever, for the purpose of being lulled into a state of quietude and sleep. Let them only have proper nourishment, and they will not suffer those gripings and other internal pains which so often keep them from sleeping--let them not be girded with swaddling clothes nor pinioned in rocking couches, and they will seldom experience that constraint of their members or those irksome and baneful compressions which fatigue and incessantly arouse the sensibility of their organs; let them be preserved from the effects of their soiled and wet clothes, which excoriate the tender surfaces of their tender persons. Let these simple and self-evident precautions only be employed, and nurses, even the most negligent, will be convinced that their charges do not need cradling or rocking or tossing of any kind, for promoting in them that inclination to slumbering, which is so advantageous to them in health, and conduces so much to their recovery from disease. Fretful and impatient nurses, have two never-failing methods of compelling babies to sleep or at least to be silent. Both of them, however, are bad, each of them is absolutely execrable: that of violently rocking them in the cradle,* disturbs their digestion, predisposes them to reject their food, deranges their sanguinous circulation, induces a degree of congestion in the blood-vessels of the brain, and thus determines a morbid somnolency, which, especially in children having large heads, becomes very often the forerunner of the most unmanageable and destructive maladies; and that of giving them wine, brandy, gin or whiskey, in sweetened water, and similar ill-concealed, but insidious poisons, or laudanum, syrup of poppies, and other preparations of opium, exercises the most pernicious influence on their nervous system; and, as happens with the brutalized orientals, who abuse their beneficent boons of nature, renders them dull and heavy and melancholy, or peevish and irritable and irascible, and of course unhealthy and unhappy through life. Such wicked and relentless practices are employed to an extent at which every feeling of humanity is utterly abhorrent, sometimes, they have the concurrence of stupid or infatuated mothers; but far more frequently proceed from the clandestine machinations of hireling nurses, and the attendants on females in confinement. In this way, and for the criminal purpose of securing to themselves the undisturbed indulgence of sloth and sleepiness, these unprincipled persons hesitate not to endanger the health and even the life of many a helpless innocent. This is no exaggerated picture; and if parents shall only admit the possibility of its having place in society, they will soon find it to be actual and true; there cannot be injustice, then, in their exercising a circumspect and unremitting watchfulness, lest their young ones be brought to suffer from the effects of these perfidious doings.

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*Adult persons, when rocked in a cradle for a short time, with considerable briskness, successively experience sickness, ringing in the ears, giddiness, head-ache and vomiting. More than one instance is known, wherein this operation, the result of an indiscreet frolic, induced, in people of ripe years, a lethargic state, which ended in a brain fever and frenzy, and long resisted, with the greatest obstinacy, the powers of an energetic and appropriate treatment. When mothers, therefore, shall take the trouble of recollecting, for the fact cannot be disputed, that the brain in grown individuals is much firmer, and consequently less susceptible of being affected by mechanical impressions, than in infants and children, they will not require an uncommon share of discernment to perceive how what produces such effects on mature organization, must necessarily be calculated to inflict incalculable and irretrieveable mischief on that which is yet tender and has not attained its ultimate completions. It cannot, then, be saying too much, to aver, that multitudes of children, especially in the inferior classes of society, are led to perish, at a premature age, by diseases having their first origin in the rough rockings employed by their nurses, with the ignorant and mistaken view of promoting what in them should have been the natural inclination to sleep. Many facts furnish evidence legitimately authorizing this induction, which must, moreover, be consistent with the experience of every one who has made this interesting matter the subject of observation

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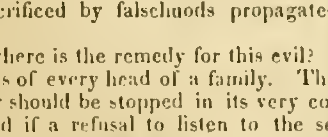
SERVANTS.

There is one foible among housekeepers that cannot be too severely reprobated. It is a contemptible itching for a knowledge of their neighbours' affairs. This curiosity leads them to encourage and listen to the scandalous prattle of their own servants, concerning the domestic affairs of other families in which they have been employed.

Servants are always ready to take advantage of the slightest advance towards familiarity on the part of a mistress; and where they find one weak enough to relish a relation of the vices or follies of others, the appetite will always be administered to so long as prolific brains can coin a lie. Mistresses should recollect, while encouraging this practice, that their own household affairs will probably be served up, with no exaggeration of defect, whenever their domestics pass into another family. Two or three instances have lately come under our knowledge, where comfort and reputation have been sacrificed by falsehoods propagated by females.

And where is the remedy for this evil? It lies in the hands of every head of a family. This tattling tendency should be stopped in its very commencement, and if a refusal to listen to the scandalous catalogue of private weakness or error were accompanied by severe reprimand, the state of society would be very much benefited.—[*Phila. Album.*

SPORTING OLIO.



The Washington Jockey Club Races,

Have been postponed to the 21st of May. This was done to enable horses from Winchester to reach there in time, and to enable the amateurs of the turf in the District of Columbia to be present at the Richmond races. The change will not, it is supposed, trench upon the meeting at Canton; it was not so intended.

Union Course (Long Island) Races.

The races over the Union Course will take place on Tuesday, the 20th instant, when the following purses will be run for:

1st day,	4 mile heats,	a purse of		$500
2d do.	3 do.	do	do.	300
3d do.	2 do.	do.	do.	200

The managers of the Union Course have made an alteration at the pavilion, the upper part of which will hereafter be occupied by those ladies and gentlemen who wish to have a fine view of the races, at 50 cents each, except subscribers, who will be admitted free. The entrance is at the north part of the building. [*N. Y. pa.*

Pedigrees of Thorough-bred Horses.

Furnished for "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

The celebrated and much admired running horse

TRUXTON,

Will stand the ensuing season, which will commence the 15th instant, and end the 1st August, in the town of Gallatin. By the particular solicitations of the citizens of Sumner county, the subscriber is induced to stand this celebrated horse at the moderate price of $20 the season, which may be discharged by the payment of two hundred weight of ginned cotton, four hundred weight of hemp, or eight hundred weight of pork, with one dollar to the groom. Ten dollars the single leap, paid when the mare is served. In all cases, notes to be given or sent with the mare. Pasturage will be furnished gratis for mares from a distance.

Truxton is a beautiful bay, full of bone and muscle—was got by the old imported horse Diomed, and came out of the thorough-bred mare Nancy Coleman, the property of Major John Verell, of Virginia. Truxton is, however, too well known to require minute description. His performances on the turf have surpassed those of any horse of his age that has ever been run in the western country; and, indeed, might be said with confidence, that he is equal, if not superior, to Mr. Ball's Florizel horse, who was got by the same Diomed, and who now stands unrivalled in Virginia, as a race horse.

Truxton, by old sportsmen and judges, is admitted to be amongst the best distance-horses they ever run or had to train. His speed is certainly unknown to all those who have run against him. He has, on the most unequal terms, started against the very best mile-horses in Kentucky and Tennessee, and beat them with great ease; and in no one instance, has ever run with any horse, when he himself was in order, but either could or did distance him with ease. Although the four-mile heats is the real and true distance for Truxton to run, he has beaten Mr. Gordon's fine mile-horse, the Jack of Clubs, and Mr. Cotton's Grey Hound, both aged horses with equal weights of 100 pounds on each, the single-mile heats.

And lastly, to crown the much doubted speed of Truxton with his opponents, he beat, on only two sound legs, on the 3d of April, 1806, over the Clover-bottom turf, the celebrated horse Plough Boy, who was never before beaten, and beating him without the assistance of whip or spurs. It is now no longer difficult for the numerous concourse of people, who were present on that day, to say, "whether or not Truxton be the true-bred racer."

Truxton's winnings, from time to time, from the most correct information, amount to at least twenty thousand dollars; and his colts are not inferior to any on the continent. Andrew Jackson.

PEDIGREE.

I do certify, that I have trained the above mentioned horse, Truxton, and with truth can say, that I believe him, in point of speed and bottom, equal to any distance horse in America.

Samuel Pryor.

Truxton, a stud-horse raised by me, and sold to General Andrew Jackson, of Tennessee. I do certify was got by the imported horse Diomed, who is in higher estimation than any other horse ever imported into Virginia, and his offspring stand higher on the list of turf nags than any other blood in Virginia or in America. Truxton's dam, Nancy Coleman, was got by Young Fearnought; her dam, Latona, by old Partner; her grandam by the imported horse Jolly Roger; her gt. grandam by the imported horse Skim, out of a Barb mare.

Given under my hand this 10th March, 1806.

John Verell.

DION,

Was imported from London in the fall of 1801, by John Hoomes, Esq., of the Bowling Green, and is remarkable for his fine colts. He was bred by Mr. Garforth, of Yorkshire; and is, undoubtedly, a horse of as fine blood as any in England. He was a good racer, and beat several of the best horses in England—among those, the famous horse Jonah, for the hand plate at York. But his most celebrated race was ran in 1800, over the York course, four miles, with Hambletonian, for the great subscription; and although the greatest exertions were made by the rider of Hambletonian, by whipping and spurring, yet he beat Dion only the neck, and actually refused to run him for the gold cup, at Doncaster, a few days after, which Dion won with the greatest ease, beating several good horses. Dion, at another time, beat Mr Cookson's celebrated Sir Harry, and Sir Thomas Gascoigne's Timothy, with several other horses in high repute, and was considered a horse of great speed and bottom also: for his running, in almost every instance, was four miles. He was lamed early and obliged to quit the turf.

Dion, now rising nine years old, is one of the most compact horses ever seen. He is a fine bay, with great beauty, and has probably the best feet, legs, back and quarters, that were ever combined in any one horse. He measures exactly fifteen hands two inches and a half under the standards, and has uncommon strength and muscle.

Dion was got by Spadille, one of the best sons of Highflyer; his dam, Faith, by Pacolet; his grandam, the famous Atalanta, by Matchem, out of "Lass of the Mill," by Oronoko; old Traveller; Sister to Clark's "Lass of the Mill;" Miss Makeless, by Greyhound; old Partner; Woodcock; Dam of the Lambton; Miss Doe; Croft's Bay Barb, &c.

John Hoomes.

The high-bred, well-known racer and imported horse

DRUID,

A chesnut, elegantly formed, near sixteen hands high, ten years old. His performances have been equal to any horse in England, as will fully appear by reference to the racing calendar—will be let to mares at $30 the season—$15 the single leap, and $50 for insurance. I have as good pasturage as any in Virginia. Belfield Starke.

Belfield, Va., Jan. 1, 1801.

Druid was bred by Earl Grosvenor, and was got by Pot8oes, (son of Eclipse,) his dam, (the famous Maid of Oaks,) by King Herod, his grandam Rarety, by Matchem, his great grandam Snap Dragon, by Snap; Regulus; Bartlett's Childers; Honeywood's Arabian; Dam of the True Blues.

Druid started, for the first time, at Newmarket, in the Craven meeting, 1793, for a sweepstakes of 500 guineas each, four subscribers, and ran a dead heat with the Duke of Bedford's Top Gallant, brother to Sky Scraper, who, the same day, beat Lord

Egremont's Gohanna, for another sweepstakes. In the same meeting, Druid won a sweepstakes of 1000 guineas each, three subscribers, beating the Duke of Bedford's Hydra

In 1794, Newmarket Craven meeting, Druid won a sweepstakes of 500 guineas each, three subscribers, "Ditch Inn," beating the Duke of Bedford's Top Gallant; and in the same meeting, won the second class of the Oatland stakes of 50 guineas each, twenty-one subscribers, beating Kitt Carr, Exciseman, Buzzard, Coriander, Gohanna, Heroine, Patriot, and several others.

In 1795, he only started once, being used chiefly as a trial-horse.

In 1796, Newmarket first spring-meeting, he won a sweepstakes of 200 guineas each, four subscribers, beating Mr. Churchill's Poet, &c.

The day following he won a plate of 50 pounds, beating Lord Sackville's Silver, Mr. Williams' Elim, and Mr Lord's Mulespinner, the round course, four miles. Elim afterwards won the King's plate, and a great subscription at York.

In 1797, Druid won the second class and the main of the October Oatland stakes.

In 1798, he won a fifty pound plate at Newmarket, beating Sir Charles Bunbury's Greyhound, and Mr. Girdler's Hare, the round course, and won the Duke of Marlborough's plate at Oxford, beating Mr. Lade's Truss, three mile heats.

Pedigree of Diana, Dam of Marshal Ney,

Mr. Hollingsworth's horse, (advertised in last week's American Farmer,) by which it appears that Marshal Ney partakes largely of the Messenger blood.

Diana is by First Consul; grandam by Messenger; great grandam by Figure; g. g. grandam Slamerkin, by the imported horse Wildair, out of the imported mare Cub. Wildair was by Fearnought, he by Regulus, and he by the Godolphin Arabian The dam of Wildair by Jolly Roger, out of the imported mare Kitty Fisher. Wildair went back to England, and covered for fifty guines the season, which was higher than any horse of his day, as may be seen by reference to the Sporting Calendar.

She was sired by the celebrated horse First Consul, of whose pedigree and performances the following statement is furnished and authenticated by his owner, the late Josh B. Bond, Esq. Philadelphia.

"First Consul was foaled in the county of Philadelphia, in June, 1798. He was got by the celebrated running horse Flag of Truce, his dam by the imported horse Slender, his grandam the imported mare Diana, (formerly Dian,) who was got by the old English Eclipse: Slender was got by King Herod, who produced more good runners than any other horse in England. Therefore it may be truly said that on the dam side of First Consul, the grand sires Eclipse and Herod, were the two best horses England ever produced.

"Flag of Truce was bred by Col. Robert Goode, of Virginia, and acknowledged to be one of the first racers of his day He won, while Col. Goode's property in Virginia, ten capital purses, besides a number of match races, and amongst many others, was the sire of Col. Tayloe's running horse Leviathan. (For his pedigree see American Farmer, vol. 9, page 406.)

"First Consul, from three to seven years old, has won twenty-one purses from 100*l.* to 100 guineas each in New York, New Jersey, Pennsylvania, Maryland, and Washington City, and never started against a horse he did not outrun, until the fall he was eight years old, and even then he made as great a race as ever was known over the Washington City course, as will appear by the certificate below. (Signed,) JOSH. B. BOND, *Phila.*"

[For pedigree of American Eclipse, (sire of Marshal Ney,) see American Farmer, vol. 9, p. 317.]

"*Washington Jockey Club, Oct* 28, 1806.—We, the subscribers, judges of the day, certify that the second heat of four miles was run in seven minutes and fifty-two seconds; and that the horses came in, in the following order: Doctor Edelen's mare Floretta, first; J. B Bond's horse, First Consul, second; General Ridgley's horse, Oscar, third; and Col Tayloe's horse Topgallant, fourth. Between the three former, it was close and hard running, and we believe the swiftest heat ever run in America. (Signed by)

Isaac Duckett,
William Lyle,
John Threlkeld."

OLD FIGURE AND CHESAPEAKE.

J. S. Skinner, Esq. 1st *May*, 1828.

Dear Sir,—I wish it was in my power to furnish the pedigrees of Old Figure and Chesapeake. I recollect having seen the latter when he ran at Chestertown, Maryland. He was, I think, a grey horse of size and bone, and at the time was owned by Mr. Gittings, of Long Green, in Baltimore county. From that family you may, perhaps, obtain his pedigree, if they will take the trouble to examine old books and papers.

I knew more of the history of Figure, because he was a horse of great celebrity, and some of the best stock in Maryland, Pennsylvania, Jersey, and New York, are from him.

He was imported by Dr. Hamilton of your shore, perhaps of Prince George's county; and soon after landing, beat, at Upper Marlborough, I think, Mr. Galloway's justly celebrated Selim, who had, a little before that, beat, over the Philadelphia course, for a large sum, the before unconquered horse, True Britton. I think it was in the year 1774, that I saw Dr. Hamilton upon Figure and walking him down Market street, Philadelphia, towards the old Coffee house. He was a bay horse, but not a fine bay. I recommend that the files of Mr Green's paper, at Annapolis, should be carefully examined, beginning at the year 1774, and going back five or six years. I shall write to a friend to examine some old files in Philadelphia. You must make interest with some person in New York, to examine the files of Livingston's paper; and perhaps two other printers I recollect, Parker and Hugh Gaine. The pedigree, heretofore sent you, of Figure, is a very confused one, and if I recollect right, gives only the history of his sire. I am, dear sir, yours, F.

N. B. Figure was, in every respect, a large and justly formed horse.

ON NAMING HORSES.

Mr. Skinner, 1st *May*, 1828.

Sir,—Mr. Randolph, in naming his horses, sets an excellent example; and, I trust, let his horses' stock be ever so superior, there will be but one John Hancock.

The blood of many fine horses has been called in question by the similarity of names, and by the same means, much worthless blood has been imposed upon the public.

I think it would be a good rule to exclude any horse or mare from the turf, who was offered by the name of any former celebrated horse or mare.

Your obedient, A. B.

Cure for Distemper in Dogs.

The Editor of the American Farmer has strong reasons to believe that there is more virtue in onion soup, or in boiled milk and onions, than in any other prescription he has heard of, for curing young dogs of distemper.

MISCELLANEOUS.

INFLUENCE OF THE MOON.

The moon is supposed to have influence on the weather. The following table, ascribed to the illustrious astronomer, Dr. Herschel, is constructed upon a philosophical consideration of the attraction of the sun and moon in their several positions, respecting the earth; confirmed by the experience of many years actual observation, and will, without trouble, and with great truth, suggest to the observer, what kind of weather will follow the moon's entrance into any of her quarters.

NEW OR FULL MOON.	SUMMER	WINTER.
If it be *new* or *full* moon or the moon enters into the *first*, or *last* quarters at the hour of 12	Very rainy	Snow and rain.
Or between the hours of		
2 and 4	Changeable	Fair and mild.
4 6	Fair	Fair.
6 8	Fair, if wind N. W. Rainy, if S. or S. W.	Fair and frosty, if N. or N. E. Rainy, if S. or S. W
8 10	Do.	Do.
10 midnight	Fair	Fair and frosty.
Midnight 2	Do.	Hard frost, unless wind S. or S. W.
2 4	Cold, with frequent showers	Snow and stormy.
4 6	Rain	Do.
6 8	Wind and rain	Stormy.
8 10	Changeable	Cold, rain if W., snow if E.
10 noon	Frequent showers	Cold, with high wind.

PHILADELPHIA WATER-WORKS.

The construction of the first water works in Philadelphia, was commenced in March, 1799. The expenses incurred from that date to March 1, 1803, were $296,604 33. So great was the undertaking considered in that day, that, as an inducement to capitalists to lend money to carry it on, the privilege of using the water for a certain period free of cost, was granted to them as a premium on the loans. In 1803, 126 houses were supplied with water free of cost. The whole water rent for that year, was only $961. It was derived from 120 dwelling houses, and 21 factories, stables, &c.

In 1814, 2850 dwelling houses were supplied with the water, and the total rental was $17,883 00. In this year the expense of raising the water by steam engines, was about $24,000.

In 1817, about 400 feet of iron pipe were laid by way of experiment. The extent of wooden pipes laid at that time, exceeded thirty-two miles, independent of the mains leading from the reservoir.

In 1818, the steam-engine at Fair Mount, was in operation. In this year the expenses of raising the water was about $16,000. Duplicate of water rents $19,922, accruing from 3218 houses.

The iron pipes extended, on the 1st of January of the present year, about 284 miles.

The whole expense of raising the water by water-power, was, last year, only $1478. The duplicates of the water rents in the city, amounted to $30,378—in the districts, 3,182—total 33,560.

For the year 1828, the duplicates of water rents in the city, amount to $32,521 50. Districts $10,371 75—increase in one year, $9,384 50.

MANUFACTORIES AND MILLS.

Statistics of Delaware county, Pa.—May, 1826.

The committee appointed to ascertain the number, extent and capacity of the manufactories, mills and unimproved mill-seats in Delaware county, Pa. beg leave to report, that they employed Benjamin Pearson, Esq. to take an account of the same; and from his statement it appears, that there are in said county, viz:

38	Flour mills, sixteen of which grind 203,600 bushels of grain per annum.	
53	Saw mills, sixteen of which cut 1,717,000 feet of lumber per annum.	
5	Rolling and Slitting mills, which roll 700 tons of sheet iron per annum; value,	$105,000
	Employs thirty hands; wages,	7,200
11	Woollen factories; employ 228 hands.	
12	Cotton do.; manufacture 704,380 lbs. yarn per annum; value,	232,445
	Employ 415 hands; wages,	51,380
11	Paper mills; manufacture 31,296 reams of paper per annum; value,	114,712
	Employ 215 hands; wages,	29,120
2	Powder mills; manufacture 11,900 qr. casks per annum; value,	47,600
	Employs 40 hands; wages,	12,000
1	Nail factory; manufactures 150 tons of nails per annum; value	20,000
	Employs 8 hands; wages,	2,400
4	Tilt, blade, and edge tool manufactories, two of which manufacture per annum 2000 axes, 200 cleavers, 1200 doz. shovels, 200 dozen scythes, and 500 drawing knives.	
1	Power loom factory; weaves 30,000 yards per week,	3,000
	Employs 120 hands; wages per week, 200 looms.	500
2	Oil. mills; manufacture 7000 gallons linseed oil,	7,000
1	Machine factory.	
5	Snuff mills.	
2	Plaister, or gypsum mills.	
3	Clover mills.	
3	Bark mills.	
1	Mill for sawing stone.	
158		
42	Mill seats unimproved on the principal streams, of various falls.	
200	Mills and mill seats.	

Making in the whole 158 mills and factories in operation, and 42 mill seats unimproved, in a district of country not exceeding twelve miles square, in the five kinds of manufactories which have returned the number of hands, viz: Paper, Woollen, Cotton, Powder and Edge-tools, employ 1,038 hands.

There are many particulars relating both to this report, and to other branches of industry, which your committee felt anxious to obtain, but owing to several circumstances they found it impossible to do so. It was, therefore, reluctantly abandoned; but with a hope that the inquiry will be further pursued in due time.

G. G. LEIPER,
W. MARTIN.

THE FARMER.

BALTIMORE, FRIDAY, MAY 9, 1828.

BALTIMORE AND OHIO RAIL-ROAD.

The opinion of the Engineers, we learn, is rather in favour of the *southern route through the Patapsco valley*, as preferable to any other, and thence across the South mountain, at or near the 'Point of Rocks.'

☞To a correspondent we shall be indebted for extracts from the Silk Manual reported to Congress by General Van Rensselaer, the patriotic chairman of the committee on agriculture. This Manual, abounding in information collected by the Secretary of the Treasury, from the best and most distant sources, is the result of the provident resolutions offered by Col. Miner, of Pennsylvania, who foreseeing the importance of the subject, took at once the most appropriate and effectual step to procure the necessary information. We shall commence the publication of these extracts in our next, accompanied with notes, by a correspondent much better qualified than ourselves to select the practical parts of the Manual.

☞The correspondent of an English newspaper, recommends the keeping of blood hounds, to facilitate the detection of sheep-stealers, murderers, and other depredators. As a proof of the sagacity of these animals, he relates the following instance:

"About eighteen years ago, a Mr. Peaton, near Lymington, Hants, had a sheep shot about one o'clock in the morning, as the report of the gun was heard about that time; and in the morning the sheep's paunch was found. A person was sent for the hound to Mr. Edward Toomer, keeper of the New Forest, and before the hound could be brought to the spot it was about two o'clock in the afternoon, a space of time of thirteen hours. He was laid on, and he followed the scent, a very crooked road, to the door of the culprit; the premises were searched in vain for some time, but the hound could not be prevailed on to quit. He at last went into the fuel house, and then began scratching. On removing the fuel a large stone was found, which the hound scratched, on removing which, the mutton was discovered. A search warrant was obtained, the man taken before a magistrate, and sent to Winchester, had his trial, and was transported."

LATEST FOREIGN INTELLIGENCE.

By the packet ship Columbia, at New York, London papers to the evening of the 1st April, are received.

The Courier of the 31st, in a second edition, says that an envoy from the Dey of Algiers had arrived at Toulon with full powers to treat for peace. The military preparations at Marseilles and Toulon had, in consequence, been suspended, and the hiring of transports stopped.

The arrival of the Asiatic troops at Constantinople, had produced some confusion. The government had been unable to prevent some Christians being killed in the streets. The Turks themselves are not without fear from the disorders that exist, and some of them had fallen victims to the prevalent excesses.

ORDER TO CROSS THE PRUTH.

The London Courier of the 1st, states, that letters had been received from St. Petersburg, dated 16th March, by which it appears that the *Russian army have received orders to cross the Pruth, on the 28th of March*, instead of 12th April, the day previously fixed upon. In consequence of this order, the exchange on London fell *two per cent.*

A Divan, at which the Sultan was present, was held at Constantinople on the 24th February. It was then declared that the Bosphorus was open to all nations; and the Sultan affirmed that it had never been closed.

IMPLEMENTS OF HUSBANDRY.

The subscriber has on hand and offers for sale, a quantity of superior Grain Cradles, manufactured by David Little, of Gettysburg, Pennsylvania. Also, Mr. Little's celebrated patent Scythe Rifles, all of which will be warranted good. Likewise on hand, a full assortment of Gideon Davis' Patent Ploughs, Barshare and Coulter Ploughs, which he will warrant to be equal to any in the country. Steel lined and cast iron Cultivators, for the culture of corn and tobacco; Shovel and Substratum Ploughs and Harrows. Also, his patent Cylindrical Straw Cutter, which has never been equalled for its kind in any country; Brown's Vertical Wool Spinners, for family use, running six spindles, simple and efficient in its operation; Corn Shellers, Wheat Fans; patent spring Washing Machines; cast steel Axes, Mattocks, Grubbing Hoes and Picks, Shovels, Spades, &c. &c. And can furnish to his customers, Garden Seeds, raised by the Shakers of Berkshire county, Mass.

All the above articles will be sold on reasonable terms for cash. Communications by mail (*post paid,*) will receive prompt attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite the United Hotel.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

TOBACCO.--Scrubs, $3.00 *a* 6 00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.[illegible]—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.12½ *a* 4.25—CORN MEAL, bbl. 2.50—GRAIN, best red wheat .87 *a* .92.—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—CORN, .34 *a* .36—RYE, .42 *a* .44—OATS, 21 *a* .23—BEANS, .80 *a* 1.00—PEAS, .55 *a* .60—CLOVER seed, 3 50 *a* 4.00—TIMOTHY, 2.25 *a* 2.50—ORCHARD GRASS SEED, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 per lb.—BARLEY, .80—FLAXSEED, .75 *a* .80—COTTON, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—WHISKEY, in hds. 1st proof, .20 *a* 20½—in bls. 22 *a* 22½—WOOL, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—HEMP, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 6 00 *a* 6.50; do. trimmed, 6.50 *a* 7 00—Herrings, No. 1, bbl. 2.37½ *a* 2.50; No. 2, 2.25—Mackerel, No. 1, 6.50; No. 2, 5.25; No. 3, 4.50—BACON, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market-sts.

AGRICULTURE.

ANSWERS TO SOME OF THE QUERIES,

Drawn up, chiefly, by Mr. Jacob, a gentleman known to European agriculturists, as the author of a report to the British House of Commons, on the price of grain in the different countries of Europe, and inserted in the American Farmer of 4th January, 1828, at the instance of Captain Basil Hall, of the Royal Navy, now travelling through America.

By Wm. Darlington, *of West Chester, Pa.*

(*Note.*—Captain Hall will please to bear in mind, that these remarks, in reply to his inquiries, are the result of observations pretty much limited to this region; and that my statements consequently have reference to the condition of agriculture in the immediate vicinity of my residence. W. D.)

With respect to the *three first* queries, concerning "*weights and measures*," [to wit: 1. Are the weights and measures the same as those of England? If not, state what they are. 2. Is the new imperial bushel, or the Winchester bushel, in use? 3. Is the measure of land, the English acre, universally adopted? Or, in the settlements composed of Irish, is the Irish acre, in those of Scotch the Scotch acre, or among Germans the morgen, made use of?] I would beg leave to refer to *Mr. Adams' Report* to Congress, in February, 1821, [and which has been placed in the hands of Captain Hall, by the Editor of the American Farmer,] as containing the most satisfactory account of the subject, within my knowledge. The weights and measures in use here, are such as were introduced by Wm. Penn, the founder of the commonwealth, about the year 1700.

Query 4. [When land is brought into cultivation from a state of nature, how many times is it necessary to turn over the soil, either by digging or ploughing, before the seed is deposited in it?] When land is brought into cultivation from a state of nature, it is frequently planted with maize, or sown with buckwheat, after a *single* ploughing, and several effectual harrowings. Buckwheat is an excellent crop to subdue wild lands. Maize is usually planted on an inverted turf, or sod; and of course may be planted, in new grounds, after a single ploughing. But if small grain, such as wheat, rye, &c., are to be sown, it is requisite to give the ground a *second* ploughing, after the sod has duly rotted, and then reduce it to a fine tilth, by harrowing.

I may here observe, that the prevailing and most approved mode of culture, in this district, is according to the following rotation of crops: The farm is divided into six or more fields, which are cultivated in succession. We begin with the oldest pasture-field--plough down the sod late in autumn, or early in the spring—harrow it well, but not so as to disturb the sod—dress it with from thirty to fifty bushels of fresh slacked lime to the acre—mark it out with light furrows and plant it with maize, in hills about four feet apart, each way. When the maize is fairly up commence passing with a light harrow, or *cultivator*, (an improved implement, with shovel-like teeth,) between the rows once a week, until the plants are between two and three feet high, so as to keep down all weeds, and preserve the soil in fine tilth. This crop is cut off near the ground, and removed, in autumn. The ensuing spring the field is ploughed again, and sown with barley, or oats, and well harrowed and rolled. When that crop is cut off, the surface is spread over with manure, and immediately ploughed down again, the latter end of August. It remains thus about a month, when it is harrowed, ploughed again in a cross direction, then sown with wheat or rye, and well harrowed and rolled. Before the harrow passes over the ground the last time, it is also sown with grass seeds, either timothy (*Phleum pratense*,) or orchard grass, (*Dactylis glomerata*,) and sometimes both. In the month of March following, the same ground is also sown with the seed of red clover, (*Trifolium pratense*.) When the crop of grain is cut off, the ensuing harvest, the surface is well set with those young grasses and the clover, which afford a good pasturage during the succeeding autumn; and the next year the field is kept as an upland meadow, to yield hay. It is either mown or pastured afterwards, until its turn comes again to be ploughed for a crop of maize. There are some slight deviations, occasionaly, from this routine; but the above is the usual course of farming in this vicinity. The plough, harrow, maize cultivator, and roller, are our chief instruments of culture. The *spade* is never used here in field culture, nor is the roller so much as it deserves to be.

Query 5. [How many successive crops can be grown on such land before it requires to be refreshedby manure?] It is difficult to give a precise answer to this query. Some lands require manure from the beginning, especially those soils in which mica-slate abounds; and, indeed, there is scarcely any new land in this region, that would not be the better of a dressing of manure, after one course of cropping, as above described. Lime is, of latter years, a very favourite dressing, in conjunction with barn-yard manure, upon almost every description of and in this vicinity.

Query 6. [Is the seed on such land scattered by sowing broadcast, or is it drilled by a machine, or is it planted by hand?] All seeds are sown broadcast here, except maize, which is dropped by hand in hills, three to five grains in a hill. Drilling implements have rarely been used, and never persevered in.

Query 7. [How many bushels per acre are commonly sown of the several kinds of grain, viz: wheat, rye, barley and oats?] There is some little difference among farmers, as to the quantity of grain sown per acre: but usually they sow about six pecks of wheat, five of rye, and eight of barley and oats, to the acre.

Query 8. [What is the average produce per acre of those several kinds of corn? what is it on the best land? and what on the worst lands actually in cultivation?] The produce, per acre, of those several kinds of corn, is as various as the quality of the soil. The *average* crop of wheat may, perhaps, be put down at twelve or fifteen bushels; of rye, twenty bushels; of barley, twenty-five bushels, and of oats, thirty bushels. On the *best* lands, fifty to seventy-five per centum may be added to the above estimate; and on the *worst*, a deduction of like amount would probably show the result—though in some instances of wretched farming, the product would scarcely replace the seed, and pay the labour of the husbandman.

Queries 9 *and* 10. [What quantity of rice and of maize, is usually applied per acre for seed? What is the usual average produce of those two kinds of grain?] *Rice* is a crop, about which our southern planters must answer. It is unknown here. The quantity of maize applied per acre, for seed, is about four quarts, and the average product per acre, about thirty-five bushels; but our best land will yield nearly double that quantity.

Query 11. [What degree of exhaustion is operated on the soil by each crop of grain; or, in what proportion does each of them, relatively to the others, destroy or lessen the fertility of land?] There is much diversity of opinion on the subject of this query: and it is not easy to determine, satisfactorily, the relative degree of exhaustion produced by each kind of grain. It is probable, however, that our Indian corn or maize, is the greatest exhauster of the soil, of any of our crops. Oats, also, are generally believed to exert a pernicious influence on the land; and this opinion is as old as the time of *Virgil*—who says,

> "Urit enim Lini campum Seges, urit *Avenæ*."

There are some judicious farmers, nevertheless, who deny this injurious property in oats, and contend that they are no worse upon land than barley. Perhaps the degree of exhaustion may be somewhat in proportion to the quantity of grain or seed produced by the crop.

Query 12. [Are shell-fruits, such as peas, beans, tares, kidney-beans, caravanses and others, extensively cultivated? What is the usual increase of each of these, viz: how many times does the produce exceed that of the seed, when cultivated on the field, not the garden system?] The leguminous plants referred to in this query, are not cultivated in this region, except some of them for culinary purposes, in gardens—I am, therefore, unable further to answer it.

Query 13. [Are edible roots, potatoes, turnips, carrots, mangel wurzel, parsnips, or any others, cultivated on the agricultural system, or merely by gardening?] The edible roots are not much cultivated on the agricultural system, except potatoes, (*Solanum tuberosum*,) and those, perhaps, not as extensively as might be advantageous. Mangel wurzel and ruta baga, have been occasionally introduced on a tolerably extensive scale, by some curious farmers; but the practice has never been persisted in here. It is probable that such roots as mangel wurzel and carrots, would be found beneficial to stock, and may deserve more attention than they have yet received. But whilst our farmers can command good crops of that admirable plant, maize, they will hardly be induced to expend much time or labour upon root-culture. The roots cultivated here are chiefly designed for culinary purposes. They are not much fed to cattle, and rarely, if ever, subjected to the processes adverted to in the *14th and 15th queries*. The limited extent of their culture does not enable me to answer the inquiries numbered 16, 17 and 18.

The object of the queries from 19 to 30, inclusive, belong to the states south of this; and from that quarter the answers must be derived.

Queries 31 *and* 32. [Are there any natural meadows, on which oxen can be fattened, so as to become fit for the butcher? How many oxen can, in the space of one year, be brought from a lean state to be fit for meat, on a hundred acres of such natural meadows?] If by *natural* meadows, is meant such prairies as occur west of the Alleghany mountains, we have none. We have, on the bottom lands along our larger streams, some fine meadows, which have never been broken up with the plough, and are well set with the *natural* grasses. They furnish good hay and excellent pasturage, on which oxen can be, and are annually fattened, so as to be fit for the butcher. Even such meadows, however, may be much improved by occasional culture, and the introduction of the *artificial* grasses. The quality of those pastures is various, and the number of oxen which can be fattened on 100 acres may be estimated at from 30 to 50.

Query 33. [Is there any upland or dry pasture fit for the rearing or fattening sheep?] There is a considerable number of sheep reared and fattened in this vicinity; but we have not any great extent of that particular kind of upland, or dry pasture, which is understood to be peculiarly appropriate to sheep.

Query 34. [Of what species of the grass tribe does the food on the moist and dry pastures consist?] The pastures, on our well-cultivated farms, consist chiefly of red and white clover, and the artificial grasses, especially timothy and orchard grass. In addition to these, where the soil is good, and is permitted to rest a few years, other valuable grasses come in spontaneously, such as green-grass, (*Poa viridis,*) blue-grass. (*Poa compressa,*) meadow fescue, (*Festuca pratensis,*) sweet-scented vernal-grass, (*Anthoxanthum odoratum,*) and herd's-grass, (*Agrostis vulgaris,*) &c. The *Poas* generally predominate. The English plantain, (*Plantago lanceolata,*) is also becoming extensively naturalized in our fields, and affords a favourite food to cattle and sheep, though our farmers generally have an aversion to the plant. The foregoing belong chiefly to the dry or upland pastures. In low and moist grounds, the grasses of spontaneous growth are mostly of an inferior quality—such as *Panicums* (several species,) *Holcus lanatus, Poa nervata, Carices, &c.* In old, neglected pasture-fields, *Digitaria,* finger or crab-grass, is a prevalent plant; also, *Andropogon,* or Indian-grass; *Aristida,* or poverty-grass, &c.

Query 35. [Do any of the festucas, poas, avenas, or pratenses, grow in them spontaneously, and which of them predominate?] *Festuca pratensis* is extensively naturalized, and appears spontaneously, (i. e. without artificial culture,) in most of our good pastures. The *Poas* also appear in the same way, particularly Poa viridis, (which is probably not distinct from the P. pratensis of Europe,) and Poa compressa. The former species, commonly called "green-grass," is highly esteemed, both for pasture and hay. We have no *Avenas* of spontaneous growth in our good pastures. The plant formerly called *Avena spicata,* (now *Danthonia,*) occurs on dry, sterile banks; and the *A. flavescens,* of Willdenow, is occasionally found in wet meadows; but neither of these is of much value. What is meant by the "*Pratenses,*" mentioned in this query, I do not exactly comprehend.

Query 36. [Are the artificial grasses cultivated, such as lucerne, trefoil, sainfoin, red and white clover, and especially the Lolium perenne?] The artificial grasses cultivated here, have already been mentioned. Lucerne, sainfoin and white clover, (which are not properly *grasses,*) are not cultivated. Sainfoin is unknown to us—lucerne has been partially tried, but was soon abandoned for red clover. White clover appears spontaneously in great abundance, in rich, moist grounds, and is much esteemed; but I have not heard that it was ever introduced artificially. Red clover is almost universally cultivated. It is considered the very best plant we possess, for improving land, and is sown every year as regularly as wheat. The Lolium perenne is naturalized in some few localities, but is very little known, and, I believe, has never been cultivated here.

Queries 37 *to* 42, *inclusive.* [What is the average weight of the oxen in a lean state? What is their average weight when killed? What season of the year is most favourable for fattening them? How long a time is generally requisite to bring them from a lean state till they become fit for the butcher? When slaughtered, what proportion does the weight of the tallow bear to that of the meat? What is the average weight of the hides?] Very few oxen are raised in this vicinity. We are generally supplied from other places, viz: Ohio, Virginia, and the western parts of New York, and of our own state. They are of various sizes, and the average weight, in a lean state, may be estimated at about 500 pounds, and when killed for beef, at about 700 or 800 pounds. The greater portion are fattened on pasture during the summer, but for fattening large oxen a longer time is required, and they are fed most successfully during the winter season. These are usually fed about one year, running on good pasture through the summer, and stall-fed, through the winter, on meal, made of maize and oats ground together. When slaughtered, the weight of tallow is to the meat nearly as one to seven. They are generally slaughtered too young to yield much tallow. The hides usually weigh about seventy to eighty pounds, or from one-tenth to one-twelfth of the weight of the animal.

Query 43. [Is the milk of the cows converted into cheese and butter?] Milch cows are not generally kept in great numbers here—it being considered less troublesome and more profitable to graze oxen for the butcher. The majority of those who do keep cows, convert the milk into butter; yet a considerable quantity of cheese is also made.

Query 44. [How many pounds of butter weekly is deemed the fair average produce of each cow?] About five pounds of butter weekly, may be deemed the fair *average* produce of each cow, though many good cows considerably exceed that. We have not yet introduced the best kinds of stock for milk and butter.

Queries 45 *and* 46. [When the skimmed milk is converted into cheese, how many pounds of such cheese is the weekly produce of a cow? When no butter is made from the cream, but the unskimmed milk used for cheese, how many pounds does each cow afford weekly?] It is estimated that the milk of a cow will yield *about double* the weight of skimmed milk cheese to that of butter, per week. Where no butter is made, but unskimmed milk used for cheese, the *weight* of cheese is not so much increased, as the *quality* of it is enhanced. I am, however, not prepared to answer these two queries satisfactorily.

Query 47. [At what age are the calves usually weaned?] Calves are usually weaned at the age of eight or ten weeks. The milk is generally in so much demand for the use of the family, to allow calves to suck as long as they ought.

Query 48. [Are calves, when intended to be used for food, fattened by any other means than milk?] Calves, intended to be slaughtered, are rarely fattened by any other means than milk. Some farmers occasionally feed them on meal of Indian corn in addition.

Query 49. [At what age are the calves commonly slaughtered?] They are commonly slaughtered at the age of five or six weeks; but that is because the cow's milk is wanted. The veal would be far better if the calves were allowed a greater age, say ten or twelve weeks.

Queries 50 *and* 51. [Are the sheep of a coarse or fine woolled breed? Is the wool long or short?] Our sheep are generally of the coarse woolled breed; but there are also many Merinos and mixed breeds. The Dishley or Bakewell is a favourite sheep with our farmers. The wool is mostly long, but varies, of course, with the breeds and mixtures.

Query 52. [Is it the custom to emasculate the males, to fit them for the table?] To this query I answer in the affirmative.

Queries 53 *and* 54. [What is the usual weight of the several kinds of sheep, viz: wedders, rams and ewes? What is the average weight of the fleeces of the above three descriptions?] The usual weight of wedders is eighty to one hundred pounds—of rams about one hundred pounds—of ewes fifty to sixty pounds. The weight of their fleeces, about five pounds unwashed, on fine woolled, and three pounds washed on coarse woolled sheep.

Query 55. [At what age are the wedders, or when it occurs, the ewes usually deemed fittest for the butcher?] Wedders are usually deemed fittest for the butcher at the age of three or four years. Ewes are rarely fed until more advanced.

Query 56. [Is any preparation used by fattening before they are slaughtered?] Wedders are mostly fed on maize to prepare them for the butcher; but ewes are commonly sold off the pasture.

Query 57. [Are the sheep usually kept in a fold during the night, or are they in winter kept in covered houses?] Sheep are not usually folded at night, nor are they generally kept in covered houses in winter. Many farmers provide a shelter made of corn-fodder, (stalks of maize,) for them to go under in bad weather. An open shed, or cover, is considered best for sheep. They do not thrive well in a close shelter.

Query 58. [Is it the practice to fold sheep on the fallow land, adopted for the purpose of manuring it?] Sheep are rarely folded at any time, and consequently not with the view indicated in this query.

Query 59. [Is the dung of cows and sheep, as well as of horses and other beasts, carefully preserved for the purposes of manuring the land?] The dung of cows, and other stock, is generally preserved with some care, for the purpose of manuring the land; but rarely with as much skill and economy as it might be. It is mostly too much exposed to rains, and suffered to be washed away. Much improvement remains to be effected in this matter. In some instances, manure has been kept wholly under cover; and it is alleged to be advantageous so to do.

Queries 60 *and* 61. [Is the manure ploughed in before seed time, or is it ever applied as a top dressing? Is it laid on in a raw state, or after it has undergone putrefactive fermentation?] Manure is usually ploughed in before seed time—very rarely, if ever, applied as a top-dressing. It is commonly applied after it has undergone the putrefactive fermentation, in the latter part of summer, but some farmers, of late, have introduced the practice of applying it in a raw state, in spring, on their barley grounds. The new practice, however, obtains but slowly; and its merits, or comparative advantages, are not sufficiently understood, to authorize the expression of an opinion thereon.

Queries 62 *and* 63. [Is the number of swine considerable? Do they draw their chief subsistence from the woods, or from the refuse of the dairy and farm?] The number of swine is considerable. Almost every farmer keeps six or eight, and often twice that number. At distilleries, mills, &c. large numbers are usually fed. On farms, their chief sustenance is drawn from the refuse of the dairy and kitchen—though many farmers turn their hogs regularly to pasture during summer. They thrive well on good pasture, and are particularly fond of red clover heads, when that plant is in flower.

Query 64. [Are they carefully and cleanly kept up when destined for the slaughter?] Hogs are usually penned up when destined for slaughter; but are rarely kept as dry and cleanly in their pens, as they ought to be.

Query 6 [Is any corn, or peas, or beans, given to them, as preparation for the butcher?] Indian corn, or maize, is the principal, and decidedly the best food for slaughter on a farm: but at distilleries and mills, they are more fed on the offal stuffs of those establishments; in which cases, the pork is of inferior quality. Pork which has been fed on maize always commands a better price than any other. Peas and beans are not given to hogs, to prepare them for the butcher—because, in the first place, we have not got them; and, moreover, if we had them, we should give Indian corn the preference.

Query 66. [What is the usual weight when slaughtered?] The usual weight of hogs, when killed at the age of to 18 months, (the customary age,) is from 300 to 400 lbs.

Query 67. [What proportion of that weight is commonly rendered in lard?] The proportion of that weight, rendered in lard, is about 10 per cent.

(*To be concluded in our next.*)

IMPROVED PLOUGH.

Mr. Charles Howard, of ngham, in Massachusetts, has invented and obtained a patent for a valuable improvement in the construction of this highly improved implement of agriculture. By the application of "friction rollers," as they are called, which "produce a self-governing principle, and operate in such a manner as to render the plough completely subservient to them, they keep the plough close to the work, without the aid and assistance of a ploughman, and it does the work in a more regular and uniform manner than can possibly be done in any other way; and the improvement makes the saving of one man* in the labour of ploughing The apparatus may be attached to any common plough, and put on and taken off at pleasure, and the plough used either way."

At the last Brighton show, the inventor received from the Massachusetts Agricultural society, a premium for his improvement, on an inspection of its work in competition with other ploughs. A perfect model of this plough may be seen at the Patent office.

WASHING SHEEP.

J. S. Skinner, Esq. *Steubenville, May 1st,* 1828.

Dear Sir,—I have just received yours, enclosing a letter from one of your subscribers, on the subject of washing wool on the sheep's back; a task performed in this country with very little trouble or expense.

We make a pen, of boards or fence-rail, large enough to hold the flock, (or three or four hundred sheep) immediately on the margin of some running stream, which is made to form one line of the enclosure. The men employed to wash the animals, take them, one at a time, (each man taking one) from this fold into the water, about waist deep, or nearly to their arm-pits, where they rub and press the wool with their hands and *arms, until the water runs out entirely clear*, which, generally speaking, will occupy from three to five minutes. They are then taken to the shore, either above or below the pen, as most convenient; and after the water is carefully pressed from the wool, are turned loose upon a dry spot, leading, if practicable, to the pasture-fields. On the fourth or fifth day they should be shorn.

Four or five active men, beginning at an early period in the morning, will wash from six to eight hundred by five o'clock in the afternoon at which hour the washing should cease, in order that the sheep may, in some measure, become dry before sun-set. I need hardly add, that the utmost care should be taken to keep the mouths of the poor animals above water, and that they should be handled carefully and gently in all repects.

We use no material but cold water in this operation, the natural grease in the wool possessing a soponaceous quality, which renders the washing perfectly easy. Pray tell your correspondent that he *need not fear washing money out of his pocket into that of the poor manufacturer*, who requires, at the present juncture especially, all the aid that can be given; and that it adds greatly to the reputation of his flock, to have the fleece *well washed, well tagged, and well put up!*

Very respectfully,
Your friend and obedient servant,
V. R DICKINSON.

PROSPECT OF CROPS.

Lower Peach Tree, Alaba., April 24, 1828.

J. S. Skinner, Esq.

The present spring season is entirely different from any I have witnessed since a resident of this state; say since 1818 The winter was unusually warm, so much so that the earliest forest trees were many of them in full foliage in February, and peaches, the size of a pheasant's egg, by the first of April, on many trees, whilst many others at that time made no show of putting out, nor have they all done so yet, though the branches are perfectly green, and have the appearance of trees early in winter. I understand this to be the case generally through this section of country, and I have heard of several persons cutting their trees down, with the impression that they would not put out any more. My trees have been blossoming regularly since early in January, and there are still some that have but here and there a scattering blossom on them, with no foliage. Apple trees are a full month later than usual, and many as yet make no show of spring.

There was frost on the 4th, 5th and 6th of this month; and on the 6th, ice the thickness of a dollar. The kernels of peaches were solidly frozen, and the leaves generally killed in the forests, especially of the more tender kinds. Wheat was (I believe,) uniformly killed, and the most of small grain much injured. I have vines that had grown from six to thirty inches previous to the frosts, all the young growth of which was destroyed. Corn was killed to the ground, and the early planted (of which there was more than usual,) was ruined.

Respectfully, yours,
SAMUEL BOUGHTON.

J. S. Skinner, Esq. *Auburn, (N. Y.) May* 2, 1828.

Our winter has been remarkably mild, and a favourable spring for seeding, has enabled our farmers to sow an unusual quantity of oats and barley. Winter grain, except on flat or level land, looks very promising. Meadows and pastures look very finely. Yours, sincerely,
J. L. RICHARDSON.

P. S.—Out of 250 old sheep, I have not lost one this winter.

HORTICULTURE.

ON THE CULTURE AND MANUFACTURE OF SILK.

Extracts from the Manual on the Culture and Manufacture of Silk, *prepared and communicated for the American Farmer, with remarks and notes, by a correspondent and practical cultivator.*

Before this reaches the reader, the season for planting the mulberry will have passed. It is therefore deemed advisable to commence the extracts from the manual, with that which will be most immediately interesting. The chapter containing "an abstract and condensed view of the mode of rearing silk worms," is given below. However minute this *condensed view* may appear, it is indeed what it purports to be—an *abstract* of the matter of some forty or fifty large octavo pages. As no great preparation is necessary for the commencement of operations in a small way, which it is presumed our readers generally will only be able to do this year, the chapter on the *laboratory*, &c. is also deferred till a future number.

Before introducing the extracts to the reader, I must be permitted to remark, that all that part of the manual which relates to the rearing of silk worms, preservation and hatching of eggs, and the procuring of eggs from the moth—indeed all which it is the immediate province of the farmer to attend to, is most unnecessarily minute, diffuse, and burthened with cares and perplexities, which the practical cultivator will never realize. One of the simplest operations of domestic life, is described in this manual, as beset with a thousand difficulties, and requiring never-ceasing care and attention, the detail of the minutiæ of which would care-craze Patience herself, were she to rear silk worms according to these directions. Happily, there is no such particularity of attention required. The writer of these remarks has reared silk worms for several years, and can truly say that a more simple employment, or one requiring less care, and exciting less anxiety, does not come within the province of the most common farmer. I have never yet lost a single egg, had a diseased worm, or failed in producing full crops of perfect cocoons, in consequence of the simplicity of my mode of rearing worms. Furthermore, I never have *any* imperfect, or unfecundated eggs; all my female moths lay full quantities of eggs, and all my eggs hatch at the desired time in the spring, without the aid of artificial means, or thermometers, and I have never had a single cocoon of any other than that of the natural sulphur colour.

No. 1.

An abstract and condensed view of the mode of Rearing Silk Worms.

Procure eggs in February and March, and choose those of a pale, slate, or clay colour; avoid all which are yellow, as they are imperfect. Keep them in a cold dry place (where water will, however, not freeze) until the leaf-buds of the mulberry begin to swell. If the eggs be soiled, dip the paper or cloth to which they adhere, in water, once or twice, to wash off the coat with which they are covered, and which will impede the hatching of the worms. Dry them quickly in a draught of air, and put them in one or more shallow boxes, lined with paper; which place, if possible, in a small room, the temperature of 64°, and keep it up to that degree for the two first days, by means of a fire in the chimney, or, still better, in a brick, tile, or porcelain stove; or for want of these, in an iron stove; and use tanners' waste-bark, turf, or charcoal, for fuel, to promote and keep up a regular heat, day and night. The third day increase the heat to 66°, the fourth to 68°, the fifth to 71°, the sixth to 73°, the seventh to 75°, the eighth to 77°, the ninth to 80°, the tenth, eleventh, and twelfth, to 82°. It is impossible to expect regularity in hatching, if reliance be placed upon our very variable weather; and it is the regularity of the worms coming forth, which will insure their uniform growth, save much trouble in feeding and attending those of various ages, and cause the whole, or the greater part, to form their cocoons at the same time, provided proper care be given during their progress*

When the eggs assume a whitish hue, the worm is formed: cover the eggs with white paper, (never use a newspaper,) pierced full of holes the size of a large knitting needle; the worms, when hatched, will creep through them; turn up the edges of the

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[*This will seem strange to a southern reader who seldom ever saw more than one man engaged with one plough. He will wonder, then that man stays in the house, how the plough is to go on in the field; but in New England, we believe it takes *two men*, or a man and a boy, always. The ploughing is done with oxen almost exclusively, and they are led. It is questionable whether we want any more labour-saving machinery. The improved machinery in England, has given her the operative power of at least 200,000,000 of able-bodied men; it has given her the power to manufacture for the world, and it has made the mass of her people, a mass of beggars—until it has become a grave question of state, how she shall get rid of her population to keep them from starving!!! We suppose the next thing will be to hitch on as many ploughs to a locomotive steam-engine as will turn up half an acre at one operation, and travel at the rate of fifteen miles an hour!—Ed. A. Far.]

*I keep my eggs in a cellar from the commencement of mild weather till the warm weather of summer is completely settled, (say 1st May,) without regard to the mulberry leaves. I then bring them out, spread them on a table in a common room and leave them to themselves. They always hatch as regularly as can be desired. The fact is, that whatever artificial means are used, the irregularity of the coming forth of the worms will be the same as when left to nature. The "variable weather" will affect one egg as well as another, and if it retards some it will retard all; and the effect of artificial means will only be to hasten the hatching of all—not to quicken the indolent and retard the forward. Hence, even under the tedious and difficult system here proposed, three or four days are required for all the worms to come out and no longer time is ever occupied when left to themselves.

paper to prevent their crawling off. Lay twigs of the mulberry, having two or three dry and young leaves, on the paper, to collect the worms, and more as they continue to mount. For want of mulberry leaves, feed for a short time upon lettuce leaves, perfectly dry; if large, they should be cut in strips, and the mid-rib thrown aside. The worms first hatched are the strongest; nevertheless, if only a few come out on the first day, give them away, to save trouble, and depend upon those which appear on the second and third days. Give away, also, the produce of the fourth day, and then the whole stock will go on regularly. If it be wished to rear all that are hatched, endeavour to keep the produce of each day separate, by numbering the boxes and shelves. When the leaves on the twigs are loaded with worms, the boxes containing them are to be removed to a new apartment, and the worms gently placed on clean, stout white paper, laid on frames filled with crossed rattans, giving them a plenty of room. The shelves over which these frames should slide, may be four feet square, and fixed to upright posts. They may be multiplied as required. Whether a distinct building or apartment in a dwelling house be devoted to a large parcel, it is absolutely necessary to secure the command of a gentle circulation of air, by having ventilators in the windows, floors, and doors. Red ants are deadly enemies to silk worms. To prevent their attacks, the posts containing fixed shelves ought not to touch the ceiling, nor must the shelves reach the walls; their legs should be smeared with thick molasses. Guard also against cockroaches and mice.

The worms being all hatched, whether they are to remain in the first apartment, or be removed to a distinct building, the heat must be reduced to 75°[*] —for, as the worms grow older, they require less heat.

First Age.

That is, until the worms have passed their first moulting, or changed their first skin.

The apartment must be light, but the sun must not shine on the worms, in any stage.[†]

Feed the worms with the most tender leaves, four times a day, allowing six hours between each meal, and giving the smallest quantity for the first feeding, and gradually increasing it at each meal between the moultings.

In about an hour and a half, the silk worms devour their portion of leaves, and then remain more or less quiet. Whenever food is given, widen the space for them. Scattered food may be swept into its place.

Experiments may be made as to the comparative advantage of using chopped or whole young leaves. Dandolo insists upon the necessity of the former. If chopped, a sharp knife must be used, to prevent the leaves from being bruised, and thereby causing the exudation of water from them, which would prove injurious. On the fourth day, the skin becomes of a hazel colour, and looks shining; their heads enlarge and assume a silvery bright appearance. These are marks of their approaching first change. Their food on this day, therefore, may be diminished, or when these appearances take place, but not before. Enlarge the spaces as the worms increase in size. The leaves ought to be gathered a few hours before they are used, that they may lose their sharpness. They keep very well in a cool cellar three days.— The leaves ought to be gathered over-night for the morning's meal, to prevent the danger of collecting them in rainy weather. The leaves must be pulled carefully, and not bruised. On the fourth day, the appetites of the worms begin to decrease, preparatory to their first moulting, and their food must be diminished in proportion as the previous meal has not been completely eaten. If the precarious heat of the weather has been depended on, the first change may not appear until the sixth or seventh day.

In the course of the fifth day, all the worms have been torpid. During this period, they must on no account be disturbed. A few begin to revive at the close of it; some leaves may be then given.— After the first moulting, the worms are of a dark ash colour.

Second Age.

As the worms are fond of the young twigs, some of these should be spread over them with the leaves attached, upon which the worms will immediately fasten, and they may then be removed to a clean paper; or lay a strip of chopped leaves near the worms, and they will leave the old food. The litter is to be taken away; but as some of the worms often remain among the old leaves, they ought to be examined; to this end, the litter should be removed to another room, spread out on a table, and a few twigs placed over it, on which the worms, if any, will mount, when they may be added to the others. This rule must be attended to, after every moulting. The two first meals of the first day should be less plentiful than the two last, and must consist of the most tender leaves. These must be continued for food until after the third moulting.

If between the moultings, any worms should appear sick, and cease to eat, they must be removed to another room, where the air is pure, and a little warmer than that they have left; put on clean paper, and some fresh leaves, chopped fine, given to them. They will soon recover, and then may be added to the others.

On the third day, the appetite of many worms will be visibly diminished; and, in the course of it, many will become torpid. The next day, all are torpid; on the fifth, they will all have changed their skins, and will be roused. The thermometer should range between 73 and 75° in the second age.

The colour of the worms in the second age, becomes a light gray; the muzzle is white, and the hair is hardly to be seen.

It must never be forgotten, that, during the time the worms are occupied in moulting, the food should be greatly diminished, and no more given than will satisfy those which have not yet become torpid on the first day, or those which have changed their skins before the others.

Third Age.

During this age, the thermometer must range between 71° and 73°. All the worms should be roused before any are removed. The revived worms are easily known by their new aspect. The latest worms should be placed apart, as their next moulting will be a day later also; or they may be put in the hottest part of the room to hasten their growth. This rule must also be observed in the next moulting. Increase the spaces.

The second day, the two first meals are to be the least copious, the two last the greatest, because towards the close of the day, the worms grow very hungry. The third day will require about the same quantity as the preceding last meals; but, on the fourth day, as the appetites of the worms sensibly diminish, not more than half of the former feed will be required. The first meal is to be the largest; feed those which will eat at any time of the day. The fifth day still less will suffice, as the greatest part are moulting. The sixth day they begin to rouse.

Fourth Age.

The thermometer should range between 68° and 71°. If the weather be warm, and the glass rise several degrees higher, open the ventilators, exclude the sun, and make a slight blaze in the chimney, to cause a circulation of the air. Widen the spaces for the worms. The leaves must now be regularly chopped in a straw cutting-box, or with the chopping knife.[*] The food is now to be greatly increased on the second, third and fourth days: on the fifth, less will be required, as, in the course of this day, many become torpid: the first meal on this day, should therefore be the largest. On the sixth, they will want still less, as nearly all will be occupied in effecting their last change of skin. Renew the air in the apartment by burning straw or shavings in the chimney, and open the ventilators. If the evenings be cool, after a hot day, admit the external air for an hour. None but full grown leaves should be hereafter given to the worms; and they must all be chopped. Avoid the fruit, as they would prove injurious, and add greatly to the litter. On the seventh day, all the worms will have roused, and thus finish their fourth age.

Fifth Age, or until the Worms prepare to mount.

In a large establishment, the exhalations from the worms and their litter, united to the heat of the atmosphere, sometimes causes great mortality among them; the means of preventing which, are treated under the head of diseases. But if proper cleanliness be observed, and a free circulation of the air be permitted, no sickness is to be feared. The thermometer should be about 68°. The constitution of the worms being now formed, they begin to elaborate the silk vessels, and fill them with the silky material, which they decompose and form from the mulberry leaves.

Give abundance of room; do not let the worms lie so close as to touch one another; for their respiration will thereby be impeded; continue to feed regularly and fully, as the appetite of the worms now becomes voracious; rather give food five times a day than four; even six small meals will not be too many. The last meal should be late at night, and the first of the next day, in the morning at an early hour. The worms are not to be again moved, and the hurdles must be cleaned. On the seventh day of the fourth age, they have attained their largest size, viz: three inches long, and begin to grow shining and yellow. The appetites of some diminish, but that of others continue, and must be supplied to hasten their maturity. The effects of a sudden increase of heat in the weather, at this time, will be highly injurious.

With respect to the temperature of the room, in which the cocoons intended to produce moths, are kept, the rule prescribed by Dandolo should be attended to. If it exceed 75°, they should be put in a place in which the thermometer will remain within the limited degrees. Moderate temperatures are, without exception, best adapted to the silk worm, the chrysalis and the moth. Notwithstanding the difficulty of ascertaining the male from the female cocoon, yet the advantages of separating them are such, that the attempt is recommended by Dandolo to be made. The benefits arising from the separation are, 1st. that, before the moths unite, they would have leisure to evacuate the excrementitious fluid they contain, the retention of which, as will be seen in the chapter on the diseases of silk worms, is injurious to the eggs. 2d. That the moths not united, are only handled once. They must now be watched, and after they have evacuated the fluid, they are to be united, and put on a frame covered with linen, which, when full, must be carried into the dark room, to remain during the time they ought to be united.*

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[*] This will be often impossible with the generality of cultivators. Happily it is not necessary. I have never experienced any inconvenience from heat, and my worms are generally exposed to a temperature of 80 to 90° and often higher, in all their different ages.

[†] My room had two windows fronting on the south, and pretty wide apart. The worms were between them, and when the shutters of one were closed, and those of the other open, the worms invariably huddled in heaps on the end of the table next the dark window; when that was shut, and the other opened, they crawled to the other end. When both were partially closed, the worms spread themselves over the table at large. I then adopted the mode of admitting a *twilight* in the room. I tried the experiment repeatedly, and am convinced of the propriety of partially darkening the room.

[*] No injury will be experienced from giving the whole leaves to the worms. I never cut or tear them in pieces, except for the sake of economy during the first age of the worms.

If, through inattention, a store of leaves has not been provided, and they are collected during the rain, they must be thoroughly dried before being given, as they will inevitably sicken the worms, if fed with them when moist.

(*Extracts, &c. to be continued.*)

EXPORTS OF SILK FROM ITALY.

The annexed statement of the amount of the exports of silk from Italy, in the years 1807, 1808, 1809 and 1810, was communicated by the Pennsylvania society for the promotion of the mulberry and the raising of silk-worms. A perusal of it cannot but furnish a strong inducement to persons favourably circumstanced for the purpose to embark in the cultivation of mulberry trees, with a view to competition in the fabrication of silk; and we should be well pleased to see this branch of manufactures, as well as that of cotton and woollen, flourish, provided it be not sought to give it a sickly and ephemeral existence, by restrictions and prohibition, unwisely laid on commerce.

In a paragraph, alluding to the subjoined statement, the editor of a cotemporary paper makes the following remarks:

"Let it be remembered, that the mulberry is a beautiful shade-tree; that two thousand pounds of leaves are required for the consumption of the worms, to produce ten pounds of silk; that a hundred trees are required to afford so many leaves; and then let it be computed, from the amount of silk manufactured in Italy, the millions of trees that we should require, and the immense number of men, women and children, who would find employment in planting trees, gathering leaves and attending to the worms. What wealth would pour in upon our state if we could but persuade our fellow citizens to plant the mulberry trees and rear the silk-worms!"

Exportation of silks and articles connected therewith from Italy in the years 1807, 1808, 1809 *and* 1810.

		Milan livres.	
Raw silk, Milan pound of twelve ounces. lbs.	839,540	14,763,709	
Spun silk,	9,303,224	156,007,448	
		170,771,157	
Augmentation of 15 pr. 70		256,156,172	
			196,886,831
Manufactured			78,850,240
In four years, ...			275,237,071
Equal to about			$55,000,000
Or, per annum, about . .			18,750,000

Twenty-eight ounces of Milan are equal to about twenty-five French ounces.

Six livres, ten sous, three deniers of Milan are worth five French francs.

INTERNAL IMPROVEMENT.

(From the London Quarterly Journal of Science and the Arts, for April, 1828.)

ON THE INLAND NAVIGATION OF THE UNITED STATES OF AMERICA.

It is now some time since the United States of America have ranked as a maritime nation, second to Great Britain alone. It is, however, only recently that the public attention has been turned, in that country to the improvement of internal navigation; but such rapid progress has been made in that direction, within the last ten years, that, in this respect also, it may be considered as having surpassed any other nation except England: nay, such is the demand for inland water communication, arising from the wide spread of an agricultural population, whose products are of great bulk, and nearly all of whose artificial wants are supplied from foreign countries, that the time cannot be far distant when, in the extent and number of its canals, the United States will probably exceed any civilized nation.

Previous to the year 1816, the artificial inland communications of the United States were limited to a very few and imperfect, and partial attempts. With the exception of the Merrimack canal, in Massachusetts, and the Santee canal in South Carolina, no continuous and complete line of artificial navigation existed; in all other cases, nothing more had been actually effected, than to deepen and improve the channels of a few rivers, and to pass their more abrupt rapids and falls by means of locks. Thus, a boat navigation, of a precarious kind, had been extended from the city of Hartford, in Connecticut, to Barnet, in Vermont, by means of the Connecticut river. Locks had been erected at the Little Falls of the Mohawk river, and a cut made from that stream to one falling into Lake Oneida; and thus a laborious water communication effected from Schenectady to Lake Ontario, and, with the interruption of portages, to some of the smaller lakes in the state of New York. A variety of canals had, indeed, been projected—a few had actually been partially executed—but the public had no faith in their success, and capital could not be obtained to commence those projected, or complete those actually begun. Apathy and distrust attended all schemes of internal improvement; and some new and powerful impulse was required to arouse the attention of the community, and prove the practicability and value of canals. To do this, it was essential that resources, incapable of exhaustion by any excess of expenditure beyond the strict estimates, should be provided, and that an experiment should be made where the revenue would be immediately sensible. To effect the first of these objects, it was necessary to bring into action the credit and revenues of one of the richer and more important states; to attain the second, it was essential to exercise great judgment in the choice of the place where the first portion of canal should be executed.

This important preliminary step was at last made in the state of New York. It was resolved, by its legislature, to pledge the credit of the state, for a loan to make a canal from the Hudson river to Lake Erie; and in pursuance of this scheme, a portion of the route was so skilfully chosen, as to satisfy, at once, even the most violent opponents of the practicability and profit of the enterprise. For this successful experiment, so important not only to the state of New York, and those whose commercial convenience is subserved by this canal directly, but to the Union in general, from the powerful influence it has exerted upon public sentiment, the U. States is in a great degree, indeed we may venture to say, wholly indebted to the present governor of the state of New York, De Witt Clinton. At a time of violent political struggle, he ventured his influence as a politician, and threw the whole weight of his character and talent into the scale of internal improvement. Although vehemently opposed by his political adversaries, impeded by the lukewarmness of his friends, and thwarted by narrow views of political economy, he persevered, and succeeded in convincing a majority of the legislature of the correctness of his views; and the resources of the state were embarked in the enterprise. Even in convincing the reasonable and impartial of the probability of the success of the undertaking, he met with much difficulty; and this arose, in a great measure, from acts to which he had himself been a party, but from which he had, on mature reflection, dissented.

The state of New York had, in the year 1810, appointed a Board of Commissioners to examine and report upon the practicability of an artificial navigation from the Hudson to Lake Erie. The opportunities for observing the public works of Europe, was fairly entitled to exercise a preponderating influence over his colleagues. That this influence was exerted in such a way as to preclude them from any collateral inquiries, was most unfortunate; for, while the report exhibited, in a most luminous point of view, the advantages to be derived from a canal, the means proposed for executing it were so unreasonable, as to startle the most excited imagination—while, to the cool and calculating, they rather appeared to prove the impracticability of the scheme, than as fitted to awaken any hopes of its success. Gouverneur Morris, who had some years before dilated with eloquence on the practicability of a navigation for ships over the contemplated route, did not venture to broach this magnificent scheme in his report. From this he was probably prevented by the better judgment of his colleagues; but he proposed a plan which, if less startling to those who had never seen a canal, or investigated the mechanical principles of hydraulic structures, was equally impracticable in the eye of those who were acquainted, either in theory or practice, with canal navigation. Stripped of a few unimportant additions, the plan was, simply—that the water of Lake Erie should be made to flow into the Hudson river, upon a plane of uniform descent, and for a distance of upwards of three hundred miles. It is wholly needless to state the objections to such a plan, it being obvious, to all competent judges, that it is not merely impracticable, but impossible, in the nature of things. This very report, then, upon the strength of which Mr. Morris has been held up as possessing a superior claim to Mr. Clinton for useful services in preparing the public mind for the execution of the New York canal, may be fairly considered as having retarded that great work for several years, and as having had a most marked effect in increasing the distrust with which it and all similar enterprises were regarded. Not only was this plan attended with physical impossibilities, but it included, in its details, mounds and embankments of mountain vastness, aqueducts of miles in length; and, in short, structures of various kinds, to which Egyptian labour or Roman power would have been inadequate.

Mr. Clinton was a member of this commission, and signed the report; nor is it to be doubted, that, confiding in the talent and genius of Morris, influenced by his powerful eloquence, and reposing trust in the practical aid furnished by the surveyor-general of the state, he concurred in it. But his enemies, in seeking to deprive him of all merit, have absolved him from all direct agency in preparing it, while the duties of the most laborious magistracy in the United States, (the mayoralty of the city of New York,) are a sufficient reason that he should not have found time to investigate and reason for himself on the subject.

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* I take the cocoons intended for eggs, lay them in rows a foot apart, on the floor of a dry, airy chamber, covered with white paper. When the moths come out, I leave them to themselves—never separate the males from the females, and allow them to couple at their pleasure. [illegible] females will lay their eggs on the paper between the [illegible] which, after they have done laying, must be put away [illegible] cellar. In this simple mode, I never have an unfec[illegible]d egg, and all my moths lay full quantities of eggs, [illegible] of which are soiled or injured. I pay no regard to [illegible] ght or darkness of the room.

In the vicissitudes of political life, Mr Clinton found himself deprived of office and occupation. He seized this interval of leisure to devote himself to scientific pursuits; and, among these, the principles of canal navigation were not neglected. To this we are to ascribe the fact, that, when he was again called upon to act as a canal commissioner, and became chairman of the board, the investigations and surveys, although in many instances performed by the same persons who had been so unprofitably employed under the former board, were now directed so skilfully, as to result in a plan of a canal complete and practicable in all its parts—the determination of a route so well selected that it has been rarely necessary to deviate from it—and the completion of estimates, that have tallied more closely with the actual cost of construction than, probably, ever before happened in any similar work. The first two of these results might, no doubt, have been attained by the employment of skilful foreign engineers. Such, however, had been the mistakes in estimates, committed by those previously employed in similar works, by which, in many cases, the objects had been entirely frustrated, that a well-founded prejudice existed against their employment; and the commissioners were left to their own resources, and the aid of the imperfectly educated surveyors of the country. The profession of a civil engineer was then unknown; and the means of obtaining knowledge in that direction, entirely wanting. The other members of the board, however intelligent and active, gladly yielded to Mr. Clinton the labour and responsibility; and, under his auspices the plan assumed a form that stamped it, in the eyes of all reasonable men, as practicable in itself and within the compass of the resources of the state. In this board of commissioners, the influence of Mr. Clinton was as paramount as that of Mr. Morris had been in the former. The result, in the one case, was a plan that was anxiously pressed into execution and found practicable; in the other, of an abortive and impracticable scheme.

We have been thus particular in dwelling upon the happy influence exerted by Mr. Clinton in the plan of the Great New York Canal, because many attempts, both direct and insidious, have been made to deprive him of his merit. It is not in the plan alone, but in the system of policy which he introduced—by which, for the first time in modern history, the whole resources of a community, in revenue and credit, were brought to bear upon a great public work—that we can look for the most important of the services rendered by Mr. Clinton to his native state, and to his country at large.

(*To be continued.*)

LADIES' DEPARTMENT.

DENTITION—TEETHING.

[As it is during infancy and childhood that the teeth make their appearance and require to be particularly watched, and as, during that period, we are all more particularly, and most fortunately under the eye and anxious care of the *mother*, it will not be deemed inappropriate that we place the following observations on *dentition* under the Ladies' Department. The subject is, however, worthy of the notice of all classes of readers, for it need scarcely be added, that on the management and sound condition of the teeth, our comfort through life essentially depends. As a matter of information, too, both curious and valuable, the general reader will consider as well bestowed the space that will be assigned to it in successive numbers.]

(From Kennedy's Instructions to Mothers.)

Dentition is not naturally connected with any form or diseased condition in the animal economy—it is by the causes only which render the process difficult or painful, that the maladies so often accompanying it, are determined. It is the object of this section, to illustrate the favourable progress of dentitino by an enumeration of the particularities which distinguish the nature of the teeth as organic productions—their number and anatomical disposition—their formation and successive developments—and the elementary principles of their structure, a knowledge of which suggests the means best adapted to the conservation of their health and beauty.

Teeth differ, in many respects, from common bone—they are much harder, and so compact that the existence of vascularity or a system of blood-vessels, cannot be detected in their structure; by which circumstance many physiologists have been led to question their being endowed with the essential attribute of organized matter, vitality, the possession of a living principle. They are covered with a peculiar substance, the *enamel*, which is not found in any other part of the body—they do not suffer as bone would do in the same situation, although they stand exposed to the perpetual influences of atmospheric air and the incalculable diversities of aliment. They are not necessarily excited to diseased action, when worn by friction; and, their mode of formation, as well as the manner of their decay, is altogether different from the same processes in other organs.

Human teeth, likewise, are peculiar in being on a level and more nearly of one length, than is any instance observable among the brutal tribes. In all other animals, the teeth differ remarkably in the length and size of their different classes, and they are separated by wider intervals. Another peculiarity consists in the upright position of the front or cutting teeth and the regular inclination of the lateral group, in proportion as they are distant from the centre of motion in the angle of the jaw. From their having a use in speech, the front teeth are very different in man from those of irrational animals. There is also a peculiarity in the obtuse tubercles of the side or grinding teeth, which indicates a correspondence between the teeth taken collectively, and the variety of food and the mixed diet which are natural to man.

Dental structure constitutes the compactest part of the human frame; and the uses to which teeth have been appropriated are: the mastication of food and a share in the articulation of vocal sounds. Each of them is situated in its own socket or hollow in the jaw, appointed by nature for its reception. The distinguishable portions of a tooth are: the body of it, the crown or base, enamel, ivory, neck, fangs, and central cavity. The *body* is that part of it which stands on the outside of the socket and jaw; it is covered with enamel instead of the filmy membrane, called *periosteum,* which envelopes a common bone—the *crown* is the upper surface of the body, and is opposed to the corresponding tooth of the opposite jaw; it is peculiarly fitted for the office of manducation. The *enamel* is that firm polished substance which overlays the crown and body of each tooth. The *ivory* is the bone-like texture placed immediately underneath the enamel. The *neck* occupies a position between the body and fangs, on the edge of the sockets, where the enamel ceases and the periosteal covering begins; it is to the neck of the tooth that the gum is attached. The *fangs* vary, from one to four, in number; they are fixed in their sockets; periosteum covers them; those of the teeth in the upper jaw, are generally more divergent, and by consequence, their attachment is firmer—and the central *cavity* is within the body of the tooth, and extends along each fang; it is lined by a delicate membrane, on which minute blood-vessels and nerves are ramified.

Adult persons have thirty-two teeth, which are usually divided into four orders: the *incisors,* which have a cutting edge—the *cuspids,* or canine, or spear-edged, so named from their having one fang and the upper part of the crown ending in a point with two lateral shoulders—the *bicuspids,* the crown of which terminates in two sharp points—and the *molars,* or grinders, from their being adapted to the process of comminuting substances by attrition.

Each jaw in its front contains four *incisive* teeth, and their crown assumes the form of a wedge, having its anterior and posterior surfaces inclined and meeting in a sharp edge. Anteriorly the surface is convex; on the inside it is concave. When viewed laterally, the tooth is broadest and flat near the neck; towards its upper margin, it arises in a pyramidal shape. The enamel descends farther on the side than on the back and anterior surface; the fangs are long and straight and conical, and penetrate deeply into the jaw. From the position, the upper project more than the lower incisors; and, in chewing, their edges do not meet, but pass each other so as to cut the food—this arrangement prevents the rapid wasting of their edge that would otherwise take place.

Passing backwards, one of the four *cuspids* is found in either side of each jaw. They have a general resemblance to the incisors, from which, when their points come to be obliterated, they are scarcely distinguishable—their fangs are longer, and being placed in the corner of the jaw and deeply socketed, they impart strength to the front teeth—their principal distinction is the spear-like form of the upper part of their crown.

Behind the last, in each jaw, stand the four *bicuspids.* In these, the crown rises in two sharp points, giving them a resemblance to two of the cuspids in a state of conjunction. Their fangs are always flatter and shorter; oftentimes they have an imperfect division; occasionally are double, and oftener convex than those of the other teeth. The second bicuspid is sometimes wanting.

In each jaw are six *molars,* or grinding teeth, having their crown in the form of an oblong square on the superior surface of which are commonly four or more projections. Enamel covers them to a uniform level, and makes them an approximation to the teeth of graminivorous animals. These regular projections being overspread with enamel, a portion of it is not displaced from the depressions when the projections themselves have been worn down. This is sufficient, to a certain degree, to save the remaining part of the tooth from wasting rapidly under the frictions to which it is exposed. Grinding teeth, in the lower jaw, have two, and in the upper, three separate fangs. Each of them may be considered as four of the cuspids intimately conjoined. The projections on the grinding surface, correspond with the points on the cuspids, and the fangs with the projections of the crown; for, although there are only two or three roots to each grinding tooth, yet there would always be four fangs if they were disparted.

(*To be continued.*)

To Clean Silk Stockings.

Wash your stockings first in white soap-liquor, lukewarm, to take out the rough dirt; then rinse them in fair water, and work them well in a fresh soap liquor—make a third soap-liquor, pretty strong and hot, in which put a little stone blue, wrapped in a flannel bag, till your liquor is blue enough; then wash your stockings well therein, and wring them. Let them be dried so that they may remain a little moist: then stove them with brimstone, after which, put upon the wood-leg two stockings, one upon the other, observing that the two fronts, or outsides, are face to face, then polish them with a glass.

SPORTING OLIO.

Canton Races—near Baltimore.

The Annual Spring Races will commence on the *Canton Course*, on the 26th day of May, inst., for the following purses, free for any horse, mare or gelding, to be run for agreeably to the rules of the "Maryland Association."

1st Day—3 mile heats, for a purse of	$200
2d Day—2 mile heats, for a purse of	150
3d Day—1 mile heats, best 3 out of 5, each horse carrying 100 lbs. for a purse of	100

Four horses to be entered each day, paying five per cent. entrance.

And on the *4th Day*—Proprietor's *Silver Cup*, 1 mile heats, free for saddle horses—$5 entrance.

Time of starting each day, 12 o'clock.

Horses must be entered before 3 o'clock, of the day previous to the day on which they are to run, with The Proprietor.

Pedigrees of Thorough-bred Horses.

Furnished for "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

Pedigrees of Imported Horses.

No. 1. Archibald, a bay horse—imported into South Carolina—foaled in 1801, got by Walnut, his dam by Javelin, out of Flora, sister to Spadille, by Highflyer.

2. Baronet, a bay horse, 16 hands high, foaled in 1785, got by Virtumnus, his dam Penultima, by Snap, her dam, (sister to Nabob,) by old Cade, old Crab, Childers, Confederate Filley.

N B This horse was imported into New York at the same time with the PotSoes mare (the grand-dam of American Eclipse.)

The celebrated mare Ariel has a cross of Baronet on her dam's side.

3 Bashaw, a fine bay horse, fifteen and a half hands high, with all his feet white; he was very finely formed, very lengthy, strong and bony, and allowed by the most eminent gentlemen of the turf, to be inferior to no horse in England—he was got by the imported horse Wildaire—his dam, Delancy's celebrated impurted Cub mare. He stood in New Jersey.

4 Bay Bolton, got by Bay Bolton in England; his dam the imported mare Blossom.

5. Hamilton—he was a large, strong, highly-formed horse; about fifteen hands three and a half inches high, possessing great muscular powers—foaled in 1793; got by Highflyer, Eclipse, Young Cade, dam of Vauxhall Snap.

6. Charlemont, afterwards called Big Ben, in which name he ran many races in England, and afterwards in this country called Traveller; he was the last son of O'Kelly's famous Eclipse. He was an elegant, high-formed, lofty, and one of the best looking horses ever imported; fifteen hands three and a half inches high, of a blood-bay colour; foaled in 1786, got by Eclipse—his dam by King Herod, Blank, Snip, Parker's Lady Thigh.

7. Clockfast, imported by a Captain Macnab, of Virginia, a beautiful grey horse, fifteen hands one inch and a half high, handsome and elegantly made; foaled in 1776; got by Gimcrack, (sire of the imported horse old Medley,) his dam, Miss Ingram, by Regulus, Miss Docby Sedbury, Miss Mayes, by Bartlett's Childers, Counsellor Mare, Snake, Luggs, Devil's Woodcock.

N. B. He was an excellent foal-getter and stood in Virginia.

8. Crawler, a bay horse, and stood in the state of Tennessee; foaled in 1792; got by Highflyer, Harriet by old Matchem, Flora by Regulus, Bartlett's Childers, Bay Bolton, Belgrade Turk.

9. David, a bay horse, foaled in 1756, bred by Lord Gower, by the Gower stallion, dam of Foxcub; her dam, Mr. Honeywood's True Blue mare, sister to Pelham's Little George, by the Curwen Bay Barb.

10. Darlington, got by Clothier, dam by Highflyer, Little John, got by the Duke of Bolton's Little John. This horse stood at Mr. Goode's stable, in Mecklenburg county, Virginia; he covered a great many mares that season, but got very few colts indeed; he was a bay.

11. Cub, (omitted in alphabetical order) a beautiful, highly formed chesnut horse, fifteen hands nearly three inches high; bred by Mr. Grenville; foaled in 1739; got by old Fox; his dam was the famous mare called the Warlocke Galloway, by the Lyster Snake, Bald Galloway, Curwen Bay Barb.

12. Dove, bred by Mr. Thomas Jackson, in the North of England; he was got by Young Cade, his dam by Teazer, out of a Gardener mare. This horse won six royal plates in England, worth one hundred guineas each, at New-Castle-upon-Tyne; he was afterwards sold for 1000 pounds sterling. He produced capital running stock in America.

13. Escape, (imported by the late Col. Hoomes, and first called Horns, in which name he raced in England,) a beautiful chesnut horse, finely formed, fifteen and a half hands high, foaled in 1798; he was got by old Precipitate, his dam by Woodpecker, his grandam by Sweetbriar, out of the dam of Bozzard by Dux, Curiosity by Snap, Regulus, Bartlett's Childers.

14 Fliminap, imported into South Carolina, a bay horse, foaled in 1765; got by South; his dam by Cygnet, Cartouch, Young Ebony by Childers, old Ebony by Basto. He produced good bottomed stock in America.

15. Saint George, imported by the late Mr. John Goode, of Mecklenburg county, Virginia; a most beautiful bright bay horse, elegantly and substantially formed, fifteen hands three and a half inches high, with his hind legs white from the coronets half way up the shanks, and jet black hoofs, with a blaze face; foaled in 1789, got by Highflyer, Eclipse, Miss Spindleshanks by Oman, Godolphin Arabian—he was a very good foal-getter.

16. Honest John, a brown horse, foaled in 1794, got by Sir Peter Teazle, his dam by Magnet, Lesang, Rib, Mother Western. He stood in Tennessee.

17. Jack the Batchelor, foaled in 1753, got by Blaze, dam by Gallant, Smiling Tom. He was imported into 1762.

18. Tom Jones, a beautiful grey horse, fifteen hands and upwards high, bred by Mr. Crofts, foaled in 1745; got by Crofts' Partner, True Blue, Cyprus Arabian, Bonoy Black. This horse produced some capital racers in America, and amongst the rest, the famous running horses Black Tom and Smiling Tom, both out of imported mares. He was imported by Sir Marmaduke Beckwith, baronet, of Richmond county, Va., in the year 1765.

19. Obscurity, a chesnut sorrel, fifteen hands two inches high, handsomely and substantially formed, and formerly the property of the late Gen. Richard Kennon, of Mecklenburg county, Virginia. He was got by O'Kelly's famous Eclipse; his dam was sister to the Duke of Kingston's Crony by Careless, full brother to Virginia Fearnought, Cullen Arabian, &c.

20 Janus, a black horse, fifteen hands one inch high, foaled in 1754, got by old Starling, old Crab, Monkey, Basto.

21. Monkey, he was twenty-two years old when imported, and produced afterwards upwards of 300 colts, and was a very excellent foal-getter—he was got by the Lonsdale Arabian, Curwen Bay Barb, Byerly Turk. This horse stood in Virginia and North Carolina.

22. Lonsdale was got by Jolly Roger, his dam by Monkey, Lonsdale's Black Arabian, Bay Arabian, Coneyskins, &c.

23. Mouse Trap, a chesnut horse, and stood in North Carolina; foaled in 1787; he was got by Young Marske, out of Gentle Kitty by Silvio, Dorimond, Portia by Regulus, Hutton's Spot, Fox cub.

24. Play or Pay, (Mr. Bouche's property,) foaled in 1791, a beautiful bay, fifteen hands one inch high; he was a highly formed horse, but light, got by Ulysses; his dam by King Herod, Regulus, Royal George's dam by Rib, Snake, Coneyskins, Hutton's Barb.

25. Porto, got by old King Herod, dam by Snap, Cade, own sister to Matchem's dam by Partner, Makeless, Brimmer, &c. He was bred by Mr. Crofts, and foaled in 1731.

N. B. This horse was sold to France, and became the charger and race-horse of his grace, the Duke of Orleans--he was afterwards sold by him, sent to Oporto, and from thence shipped to America He stood at the stable of the late Mr. Thomas Goode, of Chesterfield, Virginia, and produced excellent bottomed stock.

26. Ranger, a beautiful milk-white horse, elegantly formed, fifteen hands one inch high; got by Regulus, a son of the Godolphin Arabian. He stood in Mecklenburg, Va.

27. Regulus, formerly owned by Colonel Lewis Burwell, of Mecklenburg, Va., from whose son, (Armistead Burwell) I received the following pedigree, who said he got it from amongst the papers of his father after his decease. He was foaled in 1747; got by Regulus, (a son of the Godolphin Arabian;) he was half brother to Bald Partner by Smiling Tom, out of a Partner mare, her dam by Cupid, Hautboy, Bustlee.

28 Remus, got by Dove, Spanker, Flying Childers, out of Betty Leedes, (sister to Leedes,) by the Leedes Arabian, Spanker, which mare was Spanker's dam.

N. B. Remus sold for 1000 pounds sterling.

29. Royalist, a bay horse, foaled in 1790; got by old Saltram, his dam by King Herod, grandam by Marske, Blank, Dizzy by Driver, Smiling Tom, Miss Hip by Oysterfoot, Commoner, Duke of Somerset's Coffin mare.

This horse stood and died in the state of Tennessee.

30. Shadows, formerly the property of a Colonel Green. He stood in Mecklenburg, Va. and produced capital speedy and bottomed stock, and amongst the rest Galba.—Will any gentleman who can produce his true pedigree, publish it in the American Farmer?

31. Sloven, imported, I believe, into the state of New York, a black horse 16 hands high, substantially formed, and foaled in 1756, got by Cub, his dam by the Bolton Starling, Godolphin Arabian, Childers, Bonny Black.

32. Sourkrout, a bay horse, foaled in 1786, got by Highflyer, his dam Jewel by Squirrel, Sophia by Blank, out of Lord Leigh's Diana by Second. This horse stood in Tennessee.

33. Sweeper, a black horse, imported into South Carolina, got by Sloe, and foaled in 1751, his dam by Mogul, Partner, Coneyskins, &c.

34. Toby, a chestnut horse, about four feet eleven inches high very compact, and very much like his brother old Janus; he was full brother in blood, got by old Janus, in England, old Fox, Bald Galloway.

N. B.—He was the property of a Col. Alston, in North Carolina, as I have been credibly informed.

35. Tup, a bay horse foaled in 1796, got by Javelin, his dam Flavia by Plunder, out of Miss Eus-

ton by Snap, Blank, Cartouch, Soreheels, Makeless, Darcy's Royal mare.

36. BOASTER, a bay horse, imported by Walter Bell, foaled in 1795, got by Dungannon, his dam by Justice, Marianne by Squirrel, Miss Meredith by Cade, &c.

THE FARMER.

BALTIMORE, FRIDAY, MAY 16, 1828.

The two houses of Congress have united in a resolution to adjourn on the 26th of this month. The Senate has been very earnestly engaged in the consideration of the tariff bill, which, with certain alterations, has passed by the following vote:—Yeas, 26—Nays, 21. And from the best information we have, our readers may confidently anticipate its passage through the House of Representatives, with the amendments made by the Senate. If so, we shall give the bill, with yeas and nays in detail, in our next.

☞ The Philadelphia price current gives a table of the flour inspected in the United States, in every year, from 1820 to 1827, inclusive. The table is well worthy of preservation as an item of agricultural statistics—and we would have inserted it this week if the space for it could have been found. In the mean time it is worthy of regard as throwing light upon the effect of improved channels of internal commerce—that in New York there were inspected in 1821, but 258,902 barrels—and in Baltimore, in the same year, there were inspected 485,818, whereas, in 1827, the number inspected in New York, was 625,032—and in Baltimore, 572,759.

[We copy the following from a Philadelphia paper with pleasure, as well for the principal object referred to, as for the compliment justly bestowed upon Dr. Jones.]

Much injury has been sustained for want of proper information relative to the patent rights and new improvements connected with machinery, and we have long wanted in this country a focus where every intelligence on this subject could be concentrated. This is likely to be attained by the recent appointment of Dr. Jones as Principal of the Patent Office at Washington; in this gentleman is combined all the requisite qualities of a sound judgment, and general information relative to the various improvements in Europe, and from the advantages of his situation, he will be enabled to connect those which have taken place in this country. From his superior attainments, and kindness in imparting to others the knowledge he possesses, our artists and manufacturers may congratulate themselves on his being called to fill this important appointment.

Mr. Thomas Gill, of London, the able proprietor of the Theological Repository, has long held a high standing, which has been occasioned by his extensive usefulness in embodying and imparting information to those interested in new projects, connected with machinery and the arts, and there are but few objects of this nature, in his own country, which have not been benefitted by his assistance and exertions.

☞ The river at Wheeling, on Saturday last, was ten feet above low water mark.

LATEST FROM EUROPE.

By the arrival of the packet ship Canada, captain Rogers, files of London papers to the 16th of April, and Liverpool of the 17th, were received by our New York correspondents. [*Gaz.*

Affairs of the East.—The advices from Russia and the East, are equally as dubious, overcharged, and contradictory as before.

The London Courier of the 15th, contradicts the former intelligence, announcing the departure of the Russian Emperor, and adds: "It is understood that his imperial majesty is waiting for the report which his ambassadors have been directed to transmit to him, of the opinions and feelings entertained by France and England upon his determination to commence hostilities against Turkey."

It is believed by many that the Russian troops would pass the Pruth on the 12th April. The Pruth is the northern boundary of Moldavia, dividing that principality from Bender, the most southern part of Russia; and the Danube, which is intersected by the Pruth before it reaches the Black Sea, forms the southern and eastern bounds of Wallachia. These two principalities, it must be recollected, enjoy a sort of semi-independence, under the protection of Russia, and they have been occupied by Russian troops since the present Greek Revolution, without producing a war with the Turks.

COMMERCIAL RECORD.

LONDON, APRIL 15TH.—There is no new feature in the money market; but in the absence of news the bears are rather uneasy, which has slightly improved the price of consols since yesterday. The first price was 84, afterwards 84¼, now 84⅜. Exchequer bills 61 to 62.

LIVERPOOL, 12th April, 1828.—There has been an active demand for cotton this week, particularly for the American descriptions, and middle and lower qualities of Upland and Alabama, have advanced an eighth per pound, but the better sorts, as also Orleans and Mobiles, have only been saleable at the prices of last week. Sea Islands have been in steady request at full prices, and the finer qualities have advanced a quarter per pound. Speculators have taken this week about 3000 bags of American, (principally Orleans) cotton.

690 Sea Island at 12½ a 18; 150 Stained ditto 8 a 9; 7710 Uplands 5½ a 6¼; 5560 Orleans 5510 20 at 8¼ 5 7-8 a 8; 3950 Alabama 3900 50 at 5 a 5¼ 5½ a 6½; 2180 Brazil 7 a 8¼; 440 Egyptian 7¼ a 9; 50 West India, &c. 4 7-8 a 9; 80 Surat and Bengal 4 a 4½.

Ashes—Pots have been sold at 20s for old, to 30s. 8d. for new.

Tar—410 barrels of Wilmington has brought 12s. 6d.

Turpentine—The sales have been considerable, 2083 bbls., quality about two thirds soft, have been sold at 12s. 4d.—100 bbls. at 12s. 6d, and 100 bbls. of middling quality, at 11s. 6d. per cwt.

Rice—About 100 casks of good quality have been sold for exportation at 17s. per cwt.

LIVERPOOL, 17th April, 1828.—From the 12th inst. to last evening inclusive, there has been a steady and rather animated demand for all descriptions of American cotton, but holders have not met it with the same avidity as for some weeks past, and prices have improved, though we cannot quote an advance of full 1-8. The sales are estimated at 12,000 bags, about 4000 of which have been taken by speculators. The market is well attended by the trade this morning. The import continues large, not only from the U. S. but from Bombay, Egypt, and the Brazils, and thus far this week amounts to 26,760 bags. 1350 barrels Wilmington Tar have been sold at 12s 6d. per bbl. 950 bbls. Turpentine, of good quality, at 5 1-8 a 5¼, and 150 bbls. Montreal Pot Ashes, at 30s. per cwt.

SINCLAIR & MOORE,

Pratt street wharf, Baltimore—Have just received, and offer for sale a quantity of good clean *hemp seed*, suitable for sowing.

In store—Millet, Lucerne, early Corn, bunch, pole and soup Beans, a large assortment for planting—choice Melon Seed, from South Carolina; Cucumber, Squash, Pumpkin, early and late Potatoes, and green Cotton seed; Cultivators, Ploughs, Socket Shovels, Scythes, Mattocks and Picks, with handles; spring steel Hay and Manure Forks, Wheat Fans, Grain Cradles, with best Waldron Scythes; Garden Seeds and Tools generally; Wove Wire for seives, and mill screens.

☞ We shall receive, in a few days, from on board the brig Hyperion, Capt Forbes, just from Liverpool, a quantity of grain and grass Scythes, (Waldron's prime) sickles, Maleable trace Chains; straw and hay Knives; Grass Hooks and Garden Tools; amongst which are turnip and other Hoes; edging Tools; budding and pruning Knives, &c. &c.

VALUABLE STOCK FOR SALE.

Full blood and seven-eighth blood Devon cattle, of different ages, from calves to three years old. Heifers of full blood, will be sold at $60 to $50 each; and Bulls, from $30 to $60 each, according to age and circumstance. Seven-eighth bloods, at half the price. There is a bull of seven years old, which Mr. Barney of Delaware pronounced to be a very superior animal, from which he has bred the Devon stock, that I will sell for one hundred dollars—he is very gentle, and very sure. I have some full blood Rams of the Dishley or Bakewell breed, two years old, which I will sell at $5 each, they are the offspring of a ram of Mr. Barney's, priced one hundred dollars; and of a ewe priced twenty-five dollars. The early fattening, and the tenderness of the meat of this breed of sheep make them desirable for persons who supply the markets of large cities.

EVAN HUGHES,
Manager of R. Caton's estate, at Brookland Wood.

Brookland Wood, 9 miles from Balt. May 10, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

The principal sales of tobacco the week past has been 100 hhds. Maryland, at $3; a small lot of same description at 5.75; Ohio, 5.12½. The Inspection of the past week, at the three State Warehouses in Baltimore, 339 hhds. Maryland, 63 Ohio, 30 Georgia, and 2 Pennsylvania.

TOBACCO.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.12½ *a* 4.25—CORN MEAL, bbl. 2.50—GRAIN, best red wheat .87 *a* .92—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—CORN, .33 *a* .35—RYE, .48—OATS, 21 *a* .23—BEANS, .80 *a* 1.00—PEAS, .55 *a* .60—CLOVER SEED, 3.50 *a* 4.00—TIMOTHY, 2.25 *a* 2.50—ORCHARD GRASS SEED, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 per lb.—BARLEY, .80—FLAXSEED, .75 *a* .80—COTTON, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10¼—WHISKEY, in hds. 1st proof, .20 *a* 20½—in bls. 22 *a* 22½—WOOL, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—HEMP, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75 *a* 6.00; do. trimmed, 6.50—Herrings, No. 1, bbl. 2.25 *a* 2.37½; No. 2, 2.12½—Mackerel, No. 1, 5 25 *a* 5.50; No. 2, 2.25; No. 3, 4.50—BACON, hams, Balt cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market-sts.

AGRICULTURE.

ANSWERS to some of the QUERIES,

Drawn up, chiefly, by Mr Jacob, a gentleman known to European agriculturists, as the author of a report to the British House of Commons, on the price of grain in the different countries of Europe, and inserted in the American Farmer of 4th January, 1828, at the instance of Captain Basil Hall of the Royal Navy, now travelling through America.

By Wm. Darlington, *of West Chester, Pa*

(*Concluded from page* 66.)

Query 68. [Of what description are the horses employed in agriculture?] Our farm horses are of a mongrel breed, rather difficult to describe; but more allied to the draught, or dray breed. We have very few that are approved for the saddle, or light harness.

Query 69 [What is considered to be the usual weight for four horses to draw in a wagon, or for two in a cart?] On a common road, about two tons is the usual load for four horses in a wagon—and something less than half that weight for two horses in a cart.

Query 70. [How many miles are deemed the proper day's work for such teams?] Such teams usually travel about twenty miles in a day.

Query 71. [How many hours in the day can horses work at field labour?] At field labour, horses can work eight or nine hours in a day.

Query 72. [On a comparison of the benefit of the labour of horses and oxen in the field, which is found to be preferable?] Oxen are generally pronounced, by good judges, to be decidedly more advantageous, or profitable on a farm, than horses, but are not so pleasant to work with; and therefore not so extensively preferred, as they ought to be.

Queries 73 *and* 74. [Are asses employed in field labour, or as beasts of burden? Are mules bred to any extent, and are they used as beasts of burden?] Asses and mules are neither bred, nor employed in this district; and their merits, in comparison with horses and oxen, are entirely unknown to us. But it is believed they are too light to be well adapted to our hilly country and bad roads.

Queries 75 *to* 82, *inclusive.* [Are the lands cultivated with slaves? What is the money value of a working slave, not being an artificer, or handicraft, but employed, and capable only of being employed in field work? What is estimated to be the expense of maintaining such slave? What would be the amount of the annual value of the labour of such slave, when compared with the prices paid for similar labour to freemen in the nearest district? Can the blacks labour a longer time, or with more intensity whilst they work in the open air and in the heat of the sun, than white men? What comparison can be made as to the relative portion of labour which can be performed by the two classes? Is the labour of the black equal to that of the whites; or, if it is greater, is it in the proportion of 11 to 10, or of a higher number? How much higher is the cost of maintaining a white labourer than that of a black slave; calculating the interest of capital invested in the latter and the insurance of his life against casual or natural death?] The lands here are not cultivated with slaves. The owners of the soil, and their sons, perform a large proportion of the agricultural labour of this district; the residue is done by hired labourers. I am therefore unable to furnish an account of the money value of a working slave, or of the expense of maintaining such slave; and can only judge of the comparative value of slave and free labour, by what I have seen of those labourers who have recently been in slavery. In consequence of our contiguity to slave-holding states, we have a number of emancipated blacks amongst us, and fugitives from slavery do occasionally seek a temporary refuge in this district. The difference between the labour of these and that of a person who has always been free, is very remarkable. The constitution of the United States estimates the *political* value of a slave as only equal to *three-fifths* of a citizen; and I should say that there was even a greater disparity between the value of slave labour and that of freemen — There is a heartlessness, and hebetude, about the man who has been brought up in slavery, which strongly distinguishes him from the free man who has been always accustomed to receive an equivalent for his labour, and who possesses a proper sense of his own importance in the community.— The former is almost invariably a mere eye-servant, who takes no interest in his work, and cannot be relied upon for a faithful performance of it, unless closely watched. Addicted to the grossest animal enjoyments, he is ever prone to idleness, and improvidence; and the pernicious influence exerted by such persons, coming amongst our free born blacks, has been severely felt in this district. Their increase, moreover, has a tendency to drive off white labourers, and thereby to diminish our effective strength, and destroy that relish for active industry so essential to the virtue and prosperity of a republican people Unless this evil can be obviated by the colonization of that unhappy race, or by a radical change in their condition, there is reason to apprehend that our present good habits may one day suffer a material depreciation.

Queries 83 *and* 84. [Where no slaves are used as labourers, what is the price of the day's wages of a common agricultural man, when his food is provided for him? What is it when he provides himself with food?] The wages of a common agricultural labourer, when his food and lodging are provided for him, are, for *a year,* from 80 to 100 dollars; for *a month,* about 8 dollars in summer, and 5 dollars in winter; for *a day,* when his food is found him, about 40 cents, when he provides himself with food, about 62½ cents.

Query 85. [What is the price paid per acre for reaping wheat? What the price of mowing barley or oats?] The price per acre for reaping wheat, is about $1 75 or $2 00. For mowing barley or oats, about 50 cents.

Query 86. [What is the price for mowing grass for hay?] For mowing an acre of stout grass for hay, about one dollar. But labourers, in harvest, are most usually hired by *the day,* in this vicinity, and are paid from 62½ cents to 75 cents, and provided with food.

Query 87. [Is the threshing of corn practised by machinery, or by hand labour. When the latter, what is paid per bushel for threshing, winnowing and cleaning wheat, barley and oats respectively?] Grain is, perhaps, most generally threshed by hand labour; but many, and various, are used in this district, and much is trodden out by horses. For threshing by hand, the price is usually 12½ cents per bushel for wheat, 7 cents for barley, and about 5 cents for oats—the labourer finding his own food.

Query 88. [What extent of wheat land can one man, on an average, reap in a day?] A good workman can reap about half an acre of good wheat in a day.

Query 89. [What extent of land can he mow when the crop is barley or oats?] A good hand, with a scythe, or cradling implement, can cut about four acres of barley, or oats, in a day; but three acres is more usually the amount.

Query 90. [How much grass land is usually considered a day's work for a man to mow?] About one acre and a half of grass, if not too stout, or lodged, is usually considered a day's work for a man to mow. But one of our citizens has recently invented a scythe, to be wrought by two horses, with which he cuts from eight to ten acres of grass in a day; and another ingenious citizen of this district, has invented a *hay rake,* to be drawn by one horse, with which an acre of hay can be raked up with all ease, and with perfect neatness, in fifteen minutes.

Queries 91 *and* 92 [How many bushels of wheat can a man commonly thresh in a day? How many bushels of barley or oats?] A man can commonly thresh about eight bushels of wheat in a day; about fifteen bushels of barley, and about twenty bushels of oats.

Query 93 [What is the ordinary food of the labourer?] The labourer, here, ordinarily eats the same kind of food that the owner of the farm does; that is to say, the very best the land can afford: and it is by no means unusual for the whole family, from master to man, to eat at the same table.

Query 94. [How many hours are there in an ordinary day's work, in summer, and also in winter?] The number of hours in an ordinary day's work, in summer, is about twelve; and in winter about eight.

Queries 95 *and* 96. [What are the wages of a first rate man servant, or butler, as he is called? What the wages of an under servant, and for what length of period is he hired, generally?] A first rate man servant gets about 100 or 110 dollars a year, with boarding, washing and lodging. But the kind of servant probably intended in the query, is not much known among our farmers. We keep no butlers, nor male house servants of any description, except, perhaps, a small boy; and our hired men are *rated* according to their dexterity and usefulness on the farm. Their several wages have already been noticed in the answers to preceding queries.

Query 97. [What are the wages of female servants—housekeepers, cooks, nurses, chambermaids? and is the custom of giving servants written characters, general?] The wages of female servants are from fifty cents to one dollar per week, according to their merits; usually about 62½ cents to 75 cents per week. Nurses, and housekeepers, commonly receive $1.50 to $2 00 per week. The practice of giving written characters to servants, is, I believe, unknown here.

Query 98. [What progress has been made, or is now making, to improve the modes of cultivation?] Great improvements have been made in the modes of cultivation, and the management of farms, in this region, within the last thirty-five years. The introduction of red clover, and the artificial grasses; the rotation of crops; the use of gypsum and lime, have been the principal means of improvement; to which may be added, a neater and more spirited system of management, in all the concerns of the farm.

Query 99. [Has much attention been paid to improve the several descriptions of the live stock, by crossing the breeds? What are the best American publications on these subjects?] Some attention has been paid to improving the different breeds of sheep and hogs, and latterly, also of horned cattle; for which last, we are chiefly indebted to the laudable exertions of *John Hare Powel Esq* of Philadelphia; but we are not yet sufficiently alive to its importance Among the American publications on these subjects, may be mentioned the Memoirs of the Philadelphia, and Pennsylvania Agricultural Societies, Hints for American Husbandmen, published by order of the Pennsylvania Agricultural Society, and the American Farmer.

Queries 100 *and* 101. [Prices of the unlocated lands bought of the government? Rough estimates of the profit of trade in the towns?] As the information desired, respecting unlocated lands, can be better obtained at the seat of the General Government, I shall beg leave to refer Captain Hall to that source; and I must also refer him to the residents in our *towns,* for estimates of the profits of trade in those places.

Query 102. [Whether there are *many* or *any* landholders living upon their rents, like English landlords?] There are no landholders in this vicinity who live upon their rents, like English landlords: they nearly all live by the sweat of their brows.

Query 103. [Whether the banking system is now in a satisfactory state, and the notes of all the different banks readily exchanged for metallic money at par? What are the best publications in America on banking?] The banking system in this quarter of Pennsylvania, is now in a pretty satisfactory state. The notes of all are readily exchanged for metallic money, at par. There is a bank in this county, (Chester,) of which the stock does now bear, and has for several years borne, a higher price, than that of any other bank in the Union. I am unable to name the best publications in America on banking.

Query 104. [The comparative fertility of soil in the eastern and western states, as far as it has been guessed at?] I have not the means of estimating the comparative fertility of soil in the eastern and western states; but at a rough *guess*, I should estimate the fertility of the soil in the western states, at from 30 to 50 per centum greater than in the eastern. There are, doubtless, however, many local exceptions to such an estimate. There is land in this county, which is probably equal, in quality, to any in the west.

Query 105. [Registers of mortality, whether in towns or country, particularly in the latter?] Registers of mortality have not been attended to here, and it is impossible to give any satisfactory information on that head.

Query 106. [Proportions of births to marriages in the registers; and further, the prolificness of married women, or the number of births which married women have had during the period of their childbearing. This can only be obtained by personal inquiries. Dr. Franklin's *conjecture* was eight. M. Murat, (as stated in the chapter on the fruitfulness of marriages in Mr. Malthus' essay on population,) made some inquiries of this kind at Vevay, in the Pais de Vaux, from which it appeared that the results were essentially different from the proportions of births to marriages in registers; and it would be curious to know what is the difference in America as compared with Europe, in the fruitfulness of marriages arising from the habit of marrying earlier in America, or from any other cause? It is particularly requested that the answers to this query be the result of actual inquiries; and, in that case, it ought to be stated, if possible, how many separate families are taken into account, in order to draw the average. The detail of each inquiry would be very valuable.] From the want of registers, it is extremely difficult to estimate the proportions of births to marriages in this district—or to give any satisfactory answer to this query. From twenty-five years' observation; as a medical practitioner, I should say that the births, among married women, average about once in two years, during the period of child-bearing. But the exceptions are so numerous, that I do not see how any thing like accuracy can be arrived at in fixing the number.

All which is respectfully submitted.

WM. DARLINGTON, M. D.

West Chester, Pa., Feb. 26, 1828.

MARYLAND COTTON.

We have, within a few days, had submitted to our inspection, a sample of cotton raised on the plantation of that distinguished and enlightened agriculturist, Doctor Joseph E. Muse, of Dorchester county, Eastern shore of Maryland. The cotton bears a strong resemblance, in colour and staple, to the finest that is received from Petersburg, Virginia. We noticed some leaf in the samples, but in other particulars it was well ginned.

Dr. Muse has planted, this year, eighty acres, and from his success will probably induce many Maryland planters to follow his example.—[*N. Y. pa.*

AGRICULTURE IN MISSISSIPPI.

City of Washington,
May 12, 1828.

J. S. SKINNER, ESQ.

Dear Sir,—The period is fast approaching, when the staple of our state, (Mississippi,) will not be worth the culture. A serious inquiry presents itself to the people—to what other culture will they resort?

The Pearl river country, from experiments made on a small scale, will produce the *grape* in abundance. In the neighbourhood of Mount Carmel, a beautiful and elevated country, I have been informed by Mr. Reagan, that the grape never rots. In the town of Monticello, I have seen the native grape growing in great perfection at Colonel Blair's, equal almost to the foreign grape, and which will no doubt improve by proper culture. All that part of the state, on the sea-board, will produce the olive, grape, date, sea-island cotton, and sugar; and I have been much surprised, that so few enterprising individuals have not resorted, for settlement, to that country. The islands on the coast of Mississippi, will no doubt be settled, so soon as their value is ascertained. All that portion of the state, below the 31st degree of latitude, is supposed to be as healthy as any country in the world.

With regard to *sheep*, they need no attention in our climate, and they increase to a greater extent amongst us, than in any other state. Our hills are covered, winter and summer, with an everlasting verdure, and in a few years, we could raise a sufficient quantity of wool to supply our own wants.

I have written this letter with a view of eliciting further information on these subjects.

With respect,

W. HAILE, *of Mississippi.*

REAPING GRAIN.

The French claim the merit of a new discovery of great importance to agriculture, in the advantages which, according to them, result from the practice of reaping grain before it is perfectly ripe. This theory, which has just been promulgated by M. Cadet de Vaux, originated with M. de Salles; of the agricultural society of Beziers. The following are the particulars:

Grain reaped eight days before the usual time is, in the first place, secured from the dangers which threatened it at that time—this is only accidental; but a positive advantage is, that the grain is fuller, larger, finer, and that it is never attacked by the weevil.

The truth of these statements has been proved by the most conclusive, comparative experiments upon a piece of grain, one half of which was reaped before the usual time, and the other half at the degree of maturity fixed by the ordinary practice. The first portion gave a hectolitre of grain more for half a hectar of land. Afterwards, an equal quantity of flour from the wheat of each portion was made into bread; that of the grain reaped green, gave seven pounds of bread more than the other in six decalitres. Lastly, the weevil attacked the grain which was cut ripe, the other was exempt from it. The proper time for reaping is, that when the grain, on being pressed between the fingers, has a doughy appearance, like the crumb of bread just hot from the oven, when pressed in the same manner.

A KING AT THE PLOUGH.

The subjoined extract from the Philadelphia Advertiser, presents a beautiful picture of the rural pursuits and republican habits of Joseph Bonaparte, ex-king of Spain. In his case, the sword has almost literally "been beaten into the plough-share, and the spear into the *pruning hook.*" How enviable is his lot compared with that of the distracted and wretched monarch upon the throne once occupied by himself!

"His estate occupies a large territory. His house is in the French style, but not so splendid. His lands, on which immense sums have been expended, are well cultivated. In all public improvements he contributes liberally—something like 4000 dollars, I am told, he paid on one road.

"He is much beloved, and his memory will be ever dear to the villagers. There is scarcely now a poor family in the village, so many does he employ on his lands. He pays liberally, punctually fulfilling all his contracts—no lawsuits, no disputes, and the intemperate and immoral are at once discharged. He is constantly, in the season of agriculture, in the field with his men, and is constantly, with an elegant pruning hatchet in his hand. Strangers who are introduced, partake liberally of his hospitality. He has thus exchanged a coronet of thorns for that of a peaceful agriculturist, and become a citizen of our happy republic."

THE LATE COL. JOHN TAYLOR, OF CAROLINE, VIRGINIA.

Sketch of his character as an Agriculturist, extracted from the manuscript Introduction to the work recently proposed to be published, on the "Husbandry and Horticulture of the Middle, Northern and Eastern States," &c.—by Jas. M. Garnett, of Virginia.

——The very first successful attack made upon the strong holds of this once very numerous family—"the Goodenoughs," was by the patriotic Colonel John Taylor, of Caroline, in his excellent little work called "Arator." This awakened, every where, the dormant spirit of agriculture, which very soon began to exert and display itself, in the creation of agricultural societies in various parts of our country, where such things had never before existed; and in many well directed efforts for fertilizing our exhausted soil, and deriving from its judicious cultivation, all the various comforts and luxuries, which it is so highly capable of producing.—There were not a few who saw with no small degree of wonderment, that an excellent practical farmer, one who had made a great deal of money by it too, could actually write a book* about it, without being tempted into ruinous experiments by so perilous an undertaking! This book very rapidly passed to a fourth edition; almost every body read it who could read; many began to adopt the methods recommended, and although some were disappointed, yet, I am very sure it was more owing to their not making sufficient allowance for difference of soil, situation and other circumstances, between their farm and Colonel Taylor's, or to certain interpolations of their own, the failure of which they more willingly laid upon Arator, than to any erroneous advice given in the book itself. The good produced by it, so greatly overbalanced any mischief resulting from the misunderstandings and misapplications of a few, that Arator will continue to be gratefully remembered by every friend to agriculture, as long as shall be esteemed a virtue among us to cherish the memory of every true benefactor to his country. That *Colonel Taylor was such, in an eminent degree*, both by precept and example, is now acknowledged on all hands. *His victories*, although not of the kind which acquire most fame for those who achieve them—victories recorded in the blood of their fellow creatures—have yet been such as unquestionably contribute much more to human happiness: for they have been conquests gained over prejudice and ignorance. He demonstrated by his actions, as well as his words, the capabilities of our soil; the resources of our profession; the best methods of augmenting them; and the way to diffuse comfort, plenty, and independence throughout an agricultural community. He proved, incontestibly, the comparative ease with which fields, abandoned for their utter exhaustion, could be restored to their original fertility, and, indeed, carried beyond it. He inspired his agricultural brethren with a laudable spirit of emulation, and elevated the character of our yeomanry to that station of pre-eminence in utility, to which it has so just a claim, from their furnishing the means of subsistence to all other ranks, orders, callings, and professions. In a word, he did more for the cause of agriculture, at least in the southern states, than any other man among us has ever yet done.

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* To prove the rarity, ne sixty or eighty years ago, even of printed essays n rural affairs, (for writing books on these subjects as entirely out of the question,) I remember to hav eard, when a boy, that a certain member of one of ou *uondam great families* adventured to publish in the on newspaper then in Virginia, edited by Dixon and I die, an elaborate essay on sheep. This bold achie ent immediately acquired for him, with many, the tation of very great, very extraordinary talents; we the Goodenoughs pronounced, still more autho tively, that it was a clear proof the poor man had "a kink in his brain."—How he might have fared i ese present times, I have no means of judging, as hi ssay probably very soon became nothing more than e paper. Certain it is, that the sheep of my dear n e state, when I can first recollect noticing them, ex ted not the slightest symptoms of having derived benefit from his benevolent exertions in their beha

This tribute of regard for the memory of one who honoured me with his friendship for thirty years of my life, will not, I hope, be deemed irrelevant, in a work devoted to that cause which he so eminently contributed to promote. In noticing the progress of agricultural improvement among us, to have passed in silence over the name of *such a man*—one who may justly be considered the prime mover, the efficient source of this improvement—would have been not less repugnant to my sense of justice, than painful to the feelings of my heart. "That praise and honour should always be given to whom they are due," is a maxim which should never be neglected any where; but especially under a government whose very existence greatly depends upon applauding and rewarding talent and merit, in whatever mode they may be displayed

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POTATOES.

Many farmers are in the habit of giving raw potatoes to all kinds of stock; but they are of a watery and griping nature, and accidents have frequently happened from their use, before the cattle have become accustomed to them. For milch cows they are very bad, purging them and rendering their milk too thin and poor even for suckling. If given raw to fatten oxen, good hay and bean meal should be allowed to counteract the watery quality of the roots. There is, however, much difference in the nature of potatoes, and the mealy approach nearest to the nature of corn; the yellow afford the strongest nutriment. [*S. Magazine.*

PROSPECT OF CROPS.

Extract to the Editor, dated

Mr. Skinner, *Cambridge, (Md.) May* 13, 1828.

Dear Sir,—I am gratified to say that our agricultural prospects are unusually flattering. My hemp and barley are waving in *triumphant exultation* over their prejudiced opponents, the "anti-novelists." I mean a class of men that are pursuing the principles of the *cautious* old woman, who seriously interdicted the waters to her son, until he knew he could swim. In short, the standard of reformation is planted, and truth and reason must finally prevail. In haste, yours truly,

JOS. E. MUSE.

When you mean to do a good action do not deliberate about it.

HORTICULTURE.

ON THE CULTURE AND MANUFACTURE OF SILK.

Extracts from the Manual on the Culture and Manufacture of Silk, *prepared and communicated for the American Farmer, with remarks and notes, by a correspondent and practical cultivator.*

(Continued from page 69.)

It was remarked in the first number of these extracts, that, as there are few persons who will do more than enter into experiments this year, the description of the laboratory would be deferred to a future number. As the following description of the hedge, or espalier, however, is based upon the supposition, that the laboratory has been described and is occupied, it seems necessary to say, that the bushes or faggots here directed to be fixed upon the wicker hurdles, may with equal facility be fixed upon the common tables or whatever else may be used. I have found that *chestnut leaves* answer a much better purpose than the faggots. I cut off the ends of chestnut boughs well hung with leaves, about a foot long, and stick them in clusters on the table. When the green leaves begin to wilt, they curl and form cavities, in which the worm will spin its cocoons. In this mode there is not so great a waste of silk in forming the outward work, as in the other, and the tow is much easier detached from the cocoon.

Preparation of the Hedge or Espalier.

A week or ten days before the worms are ready to mount, bundles of twigs of chestnut, hickory, oak, or of the birch of which stable-brooms are made, must be procured and prepared.

These should be arranged into bunches, that the worms may easily climb up them, and fix themselves conveniently to pour out their first downy silk, and then work their cocoon. These bushes should be neither too thick set nor too bare, to avoid inconveniences which will be mentioned hereafter. As soon as it is observed that the worms want to rise, the faggots should be put up against the inside wall, above the wicker trays, on the most convenient side, leaving fifteen inches between each bundle or faggot.

The twigs or top branches of the bundles should touch the lower part of the tray above that on which it is placed; and, by being bent down by the tray above, form a species of arch, upon which we must observe:

1st. That the faggots should be placed a little aslant, so that the worms that climb up may not drop off.

2d. That the faggots should always be longer than the height between the floor and the wicker hurdles, or, than the height between the lower wicker and that above; thus they may always form a curve when placed between them, and in this manner, the worms that rise upon the curving part of the faggot, do not soil the worms that are climbing perpendicularly under them, when they evacuate, which would be the ease were the faggots not arched.

3d. That the branches of the faggots should be spread out like fans, that the air may penetrate through all parts, and the worms may work with ease. When the worms are too near each other, they do not work so well, and form double cocoons, which are only worth half a single round cocoon. This inattention, which is almost universal, causes great loss every year, which is little known, except by the manufacturers who spin the silk, who are obliged to separate the double cocoons from the single—the silk being of an inferior quality.

The little faggots should be fixed into the wicker work of the hurdles and not into the paper, which requires only to lift the paper at the edge of the wicker, to put in the ends of the faggots through the wicker; so as to let them touch the edges. This arrangement is also convenient for the cleaning of the hurdles, which must soon occur.

Mr. Stephenson directs that openings should be left at the tops of the curves, because the worms always make choice of them to form their cocoons. Another advantage arises from these openings, viz. that the cabins will contain a greater number of worms than when these vacancies are small. The very small tender shoots must also be cut off, as they are not able to carry the weight of a worm, and might occasion the loss of many of them by their tumbling off. The lowest shelf should project three inches, on each side, beyond the one next above it, and the same difference must be made in all the other shelves progressively upwards, in order to receive the worms which may fall from the shelf above. These projections should be covered with brush, to break their fall: for the same reason brush should be placed on the bottoms and entrances of the cabins, to afford places for the worms to form cocoons, in case they should be stunned by falling, and disabled from again mounting on the branches.

Having thus placed upon each hurdle and in their angles, a sufficient number of spreading faggots, the first worms that are ready, easily find their way up. If, in the course of this day, (which requires the very utmost care,) in watching the hurdles, some worms should be perceived ready to rise, they must be taken up and put near the ends of the bushes. There should be also some dry twigs of oak, or other wood, put upon the wickers, and when the worms rise on them, they may be lifted and put close to the bushes, which will save the trouble of constantly looking for the worms that are ready to rise.

It must be observed, however, on this subject, that, *during* the first three or four hours on which the silkworms give sign of rising, it is not necessary to be in a hurry to make them climb up; for, by remaining some hours on the hurdles, they have time to cleanse themselves by evacuation upon the litter.

Whatever may be the method followed in the course of this period, it is always desirable that the little bundles should be well placed, well arched, clean and light, and not thick; that, as before said, the air may circulate freely, and that the worms may work with ease in them.

Gathering of the Cocoons.

Strong, healthy, well managed silkworms, will complete their cocoons in three days and a half at farthest, reckoning from the moment when they first begin casting the floss. This period will be shorter if the silkworms spin the silk in a higher temperature than that which has been indicated, and in very dry air.

It is also more or less prolonged, if the silkworms are not well and healthy, or if they are exposed to a colder temperature than has been fixed: if they are exposed to transitions of heat and cold, to damp and vitiated air, or to draughts of wind, before the cocoon is sufficiently advanced to shelter them entirely; and, in short, if a great number of silkworms rise long after the first have risen, which is always the consequence of bad management and want of care.

To avoid the losses which any slight inattention may have occasioned, it will be better not to take off the cocoons before the eighth or ninth day, reckoning from the time when the silkworms first rose. They may be taken off on the seventh, if the laboratories have been conducted with such regularity, that the time may be known with certainty when this may be done.

Begin on the lower tier of hurdles, and take the cabins down gently, giving them to those who are to gather the cocoons. Place a basket between two of the gatherers, to receive the cocoons; another person should receive the stripped bushes, which may be laid by for another year. All the cocoons that want a certain consistency and feel soft, should be laid aside, that they may not be mixed with better. Empty the baskets upon hurdles or trays, placed in rows, and spread the cocoons about four fingers deep, or nearly to the top of the wicker tray. When the cocoons are detached, the down or floss, in which the silkworms have formed the cocoon, should be taken off. If the cocoons are for sale, weigh them and send them to the purchaser. The baskets, the floor, and all things used, should be cleaned.

Pullein directs, when gathering the cocoons, to make four assortments: 1. Those designed for breed. 2. The dupions. 3. The firmest of those which are to be reeled. 4. Those of a looser texture.

Choosing the cocoons for the production of Eggs

About two ounces of eggs may be saved out of one pound and a half of male and female cocoons.

The small cocoons of a straw colour, with hard ends and fine webs, and which are a little depressed in the middle, as if tightened by a ring or circle, are to be preferred. There are no certain signs to distinguish the male from the female cocoons: the best known are the following:

The small cocoons, sharper at one or both ends, and depressed in the middle, generally produce the male. The round full cocoon, without the ring or depression in the middle, usually contains the female. These, according to Pullein, may be distinguished from the dupions by the extra size, the clumsy shape, rather round than oval, of the latter. As, however, all marks may fail, an extra number may be kept of the best of those which are spun double, and when the moths come out, the males and females being easily distinguished, an addition can be made from them to the defective side.*

By shaking the cocoon close to the ear, we may generally ascertain whether the chrysalis be alive. If it be dead, and loosened from the cocoon, it yields a sharp sound; when dead, it yields a dumb, muffled sound, and is more confined in the cocoon.

Sauvage says, that the dupions or double cocoons, constantly produce a moth of each sex; and, on this account, advises them to be selected for seed; but it is a mistake to suppose, that this equality in the sexes of the dupions takes place: for Mr. Nysten found, that of twenty double cocoons which he examined, seven contained two males; six, two females; and seven, one male and one female.

Preservation of Cocoons intended for Seed

Experience shews, that where the temperature of the room is above 73°, the transition of the chrysalis to the moth state, would be too rapid, and the coupling will not be productive. If below 66°, the development of the moth is tardy, which is also injurious. Damp air will change it into a weak and sickly moth. The apartment should, therefore, be kept in an even, dry temperature, between 66° and 73°. When collected, spread the cocoons on a dry floor, or on tables, and strip them clean of down or floss, to prevent the feet of the moth being entangled in it when coming out; while cleaning them, all those that appear to have any defect should be laid aside. This is the time, also, to separate the male and female cocoons, as far as we can distinguish them

Mr. Stephenson directs the selection of an equal number of males and females, and to keep the cocoons of the same day's mounting separate, that the moths may pierce them at the same time. If the good cocoons taken from the whole parcel, are all first mixed, and the selection for those intended for breeding, be made from this general heap, many will be set aside, which were formed by worms that had mounted upon different days, and which will be pierced by the moths unequally, and hence there will not be an equal number of males and females produced at the same time. This irregular appearance may cause the loss of a great many moths or of several thousand eggs. Pullein orders the choice to be made from those shelves, or arbours in which the worms spun the earliest. But it is questionable whether the circumstance of early spinning, would affect the worm next season, unless the temperature of the apartment, in both seasons, was equal. Dandolo says, that the strength shewn by a worm in forming a cocoon, has no influence upon the fecundity of the male, nor upon the quality of the eggs. Cocoons of various tenuity and shapes, have equally afforded him large quantities of well impregnated eggs. Healthy worms, of equal weights, have given cocoons which varied in weight.

When the selection has been made, the sorted cocoons must be put on tables, in layers of about two inches, allowing the air to pass freely through them, that it may not be necessary to stir them frequently; but it is beneficial to stir them round once a day, if the air be moist. When the seed cocoons are not very numerous, they may be strung upon threads and hung against a wall, or suspended from a beam. Just so much of the middle of the cocoon is to be pierced with a needle, as is sufficient to attach it to the thread. The middle is chosen, because it cannot be ascertained at which end the moth will pierce the cocoon. Place a male and female, alternately, upon the thread, that they may be near each other when they come out.

If the heat of the apartment is above 73°, every method of diminishing the heat should be tried; such as keeping all apertures to the sunny sides carefully closed, to cause thorough draughts of air to dry the humidity that exhales from the chrysalides. Should the temperature rise to 78 or 82° the cocoons must be put into a cooler place, as a dry cellar.

(*To be continued*)

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[*] It is a fact, which all my experience proves, that any quantity of cocoons taken promiscuously, will yield about an equal number of each sex. This would seem also to prove the natural necessity for a male to every female, in the propagation of the species. In selecting cocoons for eggs, therefore, my first object is to take all the *double* ones, and then to add enough of the others, taken promiscuously, to complete the desired number. Should there be *orange*, or any cocoons of a colour other than the *sulphur*, I should exclude them; because I think it more than probable, they are the product of diseased worms. A friend of mine obtained eggs from cocoons of a pure sulphur colour, the worms from which produced several cocoons of a deep orange tinge. I have some eggs now hatching, which were obtained from orange coloured cocoons, and shall be able to ascertain whether they produce silk of the same colour, and whether the worms are healthy or otherwise.

INTERNAL IMPROVEMENT.

(From the London Quarterly Journal of Science and the Arts, for April, 1828.)

ON THE INLAND NAVIGATION OF THE UNITED STATES OF AMERICA.

(*Continued from page 70.*)

Since the impulse has been given by the successful example of New-York, every portion of the United States has teemed with plans of public works Many of these are in their very nature, either impracticable or useless; others, again are of the utmost value and importance. The several local legislatures have, in various ways, aided and encouraged the investigation or actual construction of canals; but in none, except Ohio, has the bold and successful policy of the state of N York, by which its whole strength was applied to the purpose, been fully imitated. The federal government was applied to at an early period, to contribute its aid to internal improvement, by a grant of public land to the several states, in proportion to the extent and importance of the works of internal improvement they might execute. This failed at the moment, and a constitutional question has since arisen, as to the powers of the general government in this respect, which bids fair to become the dividing line of powerful opposing parties.

The inhabited parts of the United States may be considered as divided into two great portions, the sea coast and the western country. Hence, the internal communications may be naturally arranged into three great classes: those which tend to form line of communication parallel to the coast, those which connect the western states to the sea board, and those more partial in their objects and limited in their influence

The coast of the United States presents a variously indented outline, pierced in various places by great arms of the sea, of which the Chesapeake and Delaware bays, and Long island sound, are the most remarkable. Their very situation and direction appear calculated to elicit the inquiry, whether it would not be possible to connect them, and thus to substitute an internal communication safe from the violence of storms, and easily defended from an enemy, for the more tedious and dangerous passage by sea? This great line of navigation has, consequently, engaged the attention not only of local governments, but of the general administration. Little has, however, been actually effected. We shall proceed, however, to point out the several parts belonging to this system, and mention the condition in which they respectively stand.

The most northern canal intended to facilitate a communication parallel to the coast, is one from Massachusetts to Buzzard's bay. This has been carefully examined, within the last year, by a board of military engineers, and reported to be practicable at no great expense. It is intended that it shall be made a navigation for large sloops, but no active steps have hitherto been taken towards its execution.

Long island sound, the bay and harbour of New York and the Raritan river, afford an uninterrupted navigation for large sloops as far as New Brunswick, in the state of New Jersey. From this town to the navigable waters of the Delaware, the distance is no more than thirty miles. The country is remarkably favourable for a canal, which might be executed on a level sixty feet above the tide, and requiring, in consequence, about six locks at each extremity. A want of public spirit and liberal views in the government of the state of New Jersey, has hitherto prevented its accomplishment. It would not be a difficult matter to show that the tolls, on such a canal, would yield a profit greater, annually, than the whole revenues of that state. Still however, no argument has been found sufficiently powerful to induce the legislature to take the execution upon itself On two different occasions, acts to incorporate private companies have been passed, but both have been so clogged with restrictions, as to prevent capitalists from investing their funds Nor is there any reasonable hope that the object will be speedily effected The state unluckily labours, and must always labour, under the original defects of its position. Separated from the proprietary government of New York, while the latter was still the apanage of James, Duke of York, the limits had no reference to any other object but ease of demarcation. The Hudson separates it from New York on the one side, and the Delaware from Pennsylvania on the other. However definite these may be as territorial limits, they operate, by their facilities of navigation, rather as bonds of union, than as divisions of the inhabitants in their vicinity from those of the two adjacent states Hence the citizens of East and West Jersey have different feelings and views upon almost every question of public interest, nor does it appear possible to unite them in exertion by the force of public spirit It is, therefore, hardly probable that this, perhaps the most important of all the links in the chain of the coast navigation, will be speedily effected, unless the power of undertaking such enterprises be recognised to exist in the general government, or it should be construed into a necessary preparation for future defence. In this last light, in truth, it may be considered as especially important.

The communication between the Delaware and Chesapeake bays, has been under more fortunate auspices It has been intrusted by the states of Delaware, Maryland and Pennsylvania, to a chartered company, which has undertaken, in good faith and with much spirit, the objects of its incorporation This canal will, in consequence, be finished and navigable by the close of the year 1828 It is calculated for vessels drawing seven feet of water, and the locks are twenty-two feet in breadth, and one hundred feet in length, between the gates. It lies eight feet above the high tides of the contiguous bays, and has, therefore, but one lock at each extremity, besides the tide-locks. To effect this plan, there is necessarily a deep cut nearly four miles in length, and seventy-six feet in depth, at the highest part of the ridge. The whole canal is less than eighteen miles in length.

The navigation of the Chesapeake is safe and uninterrupted as far as the Capes of Virginia; within these is situated the town of Norfolk, a commercial mart of some importance. The harbour of this city has been connected with the sounds that extend along a great part of the coast of North Carolina, by a canal passing through a vast morass called the "Dismal Swamp," whence the name of the communication is derived.

Albemarle, Pamlico and Core sounds, afford an uninterrupted land-locked communication as far as Beaufort, in North Carolina. But to render the passage more safe and certain, it has been proposed to cut a canal from Plymouth through Washington and Newbern to Beaufort. From this last town, a range of islands extends, enclosing sounds, to within a few miles of the mouth of Cape Fear river, with which a communication may be opened at a small expense. Near the mouth of Cape Fear river, stands the town of Wilmington, from which a canal is projected to Georgetown, situated on the river Pedee, in South Carolina. A canal has also been surveyed from this last named place to Charleston, parallel to the coast. From the harbour of Charleston, a passage exists behind Edisto island, as far as the river of that name, and from that river a canal is proposed to unite it to the Savannah, the boundary of the states of South Carolina and Georgia.

The whole coast of Georgia is lined by the sea islands, within which are navigable sounds, and they extend beyond the southern limits of the state as far as the mouth of the river St Johns, in Florida By means of this last river, or the St. Mary's, the southern boundary of Georgia, engineers, in the service of the general government, are engaged in seeking a communication for large vessels with the Gulf of Mexico. That such a passage is practicable, is said to be certain; nay, it is said that the government is in possession of papers that prove that one actually exists for vessels of small size, which had been used for piratical purposes, before the cession of Florida to the United States.

All the canals we have mentioned, from Norfolk southwards, may be constructed at small expense, as the country is low and level; even tidelocks may, in most cases, be dispensed with.

As an appendix to the artificial navigation parallel to the coast of the United States, may be inserted the navigation of the Connecticut and Hudson rivers, and Lake Champlain. These form links of the great chain of communication from the extreme northern frontier to the Gulf of Mexico, and are therefore more properly classed under this head than as merely local enterprises.

We have already stated that an imperfect navigation had long existed from Barnet in Vermont to Hartford in Connecticut, which last place is accessible by the river of that name, for vessels of upwards of one hundred tons. This was, however, so precarious and uncertain, that it has been resolved to abandon the river altogether, and construct a lateral canal. For this purpose it has been proposed to leave the river near the town of Northampton, to proceed by Westfield in Massachusetts, and Farmington in Connecticut, to the Port of New Haven. So much of this canal as lies within the state of Connecticut, is in rapid progress, and will probably be finished during the present year, 1828. That part lying in Massachusetts has also been committed, by a liberal act of that state, to the same incorporated company. Lake Champlain affords a deep and bold navigation from the Canada frontier to its head at the village of Whitehall; at this place commences the "Champlain canal" of the state of New York. This navigation receives its waters from the Hudson river, by means of a weir thrown across it at Fort Edward. The summit extends north from this twelve miles; the fall towards the Hudson is thirty feet; towards Lake Champlain fifty-four feet; the whole length of the canal is about twenty-four miles. From Fort Edward the passage was at first effected by deepening the bed of the Hudson, and by a few lateral cuts as far as Saratoga, where a lateral canal commenced, extending a distance of seventeen miles to Waterford, at the confluence of the Mohawk and Hudson.

Subsequent improvements have, however, been made, so as to form an entire canal from Fort Edward to Albany, crossing the Mohawk just below the falls of the Cohos. From Albany, the Hudson is navigable without interruption, except for a few weeks in the year by ice, for vessels of one hundred tons; ships of five hundred tons may ascend as far as the city of Hudson, one hundred and fifty miles from the sea; and the largest line-of-battle ship may find a channel, no where less than a thousand yards in breadth, and as far as Newburg, sixty-five miles above the city of New York.

Thus, then, three separate navigations may be considered as entering in the city of New York, two of which extend to the extreme northern frontier of the United States; that by the Hudson, Northern Canal, and Lake Champlain, is completed; that by way of New Haven to the Connecticut river in a state of great forwardness; the third, intended to open a passage to Massachusetts bay, and to avoid the dangerous and exposed voyage around Cape Cod, and the shoals of Nantucket, is seriously contemplated, and practicable at a low expense. From New York to the south a chain of inland communication has been investigated (and one of the most important parts nearly completed,) by which a vessel may pass safe from storms, and out of the reach of a maritime enemy so far as the Gulf of Mexico. When the whole of the links of this chain will be completed, it is difficult to predict. Many parts of it are, however, called for to facilitate the local traffic of the districts in which they are situated; others again are important only as portions of the general scheme. The first of these will no doubt be speedily accomplished, now that the spirit of internal improvement has been awakened; the last will probably be left to the general government, and may very possibly remain untouched, unless the necessity be rendered imperative by national wants, as it would be in the event of a future war.

(To be continued.)

LADIES' DEPARTMENT.

(From Kennedy's Instructions to Mothers.)

DENTITION—TEETHING.

(Continued from p. 70.)

Mankind receive successive sets of teeth—the milk or deciduous, and the adult or permanent.—The former includes twenty; of these four are incisors, two cuspids, and four grinding teeth, in each jaw.

In children, the central incisors of the lower jaw are generally the first to pierce the gum; in a month afterwards, their counterparts in the upper jaw make their appearance. These, in a few weeks, are succeeded by the lateral incisors of the lower; and then by those of the upper jaw. Sometimes, however, the latter precede the former in the perfection of their growth. About the fifteenth month, the anterior grinders of the lower jaw elevate their white surfaces above the gum; then the cuspids, and in the end, the large molar teeth make themselves visible, the inferior generally being antecedent to the superior teeth. The last tooth does not rise till the beginning of the third year of life. This is the more regular and common order in which the teeth consecutively assume their positions in the jaw; but it is not universal. When they appear in irregular succession, it has been said, that more irritation and pain, and more of those symptoms ordinarily ascribed to teething, accompany their progress.

With the rising of the second grinder, the deciduous set may be considered as completed; for the third, being formed about the eighth year, when the jaw has advanced towards its perfect form, is never shed, but truly constitutes the first permanent tooth. The grinders of the adult, indeed, are properly the permanent teeth, for they alone arise in this part of the jaw, and retain their original places.

During the sixth and seventh years, the young person's jaws have so much enlarged, that spaces are left between the deciduous teeth, which now begin falling out and give place to the permanent.

Children, at this period, have ceased to be any longer in a state of nature; and circumstances, numerous and diversified, have affected their health and growth. For this reason, it happens that in regard to time, the shedding of their teeth is by no means regular: in certain individuals, they fall out three years sooner than others, and, in frequent instances, some of them permanently retain their original positions. We ought, therefore, to be at all times well assured of the adult tooth being in a state of progressive advancement, before that of the primary set is heedlessly extracted

Nature has beneficently provided, that while the jaw bones are still small, the permanent teeth should rise slowly and in succession, so as to escape being crowded into too narrow a space, and of course turned from their proper direction. Slowness in shedding the deciduous, or a premature developement of the permanent teeth, is a very general cause of irregularity in their ultimate arrangement. Commonly, the incisors of the under jaw become loose when the foremost of the secondary grinders are penetrating the gum; the central soon after appear; and, in two or three months more, those of the upper jaw arise. Next, in about four months, the lateral incisors give way, and their permanent successors take their places at the same time with the anterior grinders: the lateral incisors of the upper jaw then follow; and, in the course of another year, the temporary grinders grow loose, but the cuspids are enabled to retain their hold of their sockets for a short time longer, by means of their lengthened fangs. When the anterior grinders and the cuspids have decayed, they are succeeded, about the ninth year, by the bicuspids and cuspids of the adult set. Before the end of the eleventh year, the farthest back of the bicuspids take place of the anterior grinders, the second of which does not appear for five or six years after the permanent teeth commence occupying their sites.

Between the eighteenth and twentieth year of the person's age, the jaw acquires its final proportions: then, also, the third grinder, or *wisdom-tooth*, ascends into its site. This is shorter and smaller, and more inclined inward than any of the rest, and its fangs are less regular and distinct. From the cuspids to the last grinder, the fangs become much shorter; and from the first incisor backwards, the teeth themselves stand less out from their sockets and the gums.

Induration does not commence, in all the teeth, at the same period. *Incisors.*—A portion of their crown appears in the fourth fœtal month; the bone-like structure which includes the pulp is then a line in thickness; the central are farthest advanced in their development; and the fluid contained in the capsule has a yellow, sometimes reddish colour. By the sixth month, two-thirds of them are formed; at birth, their crown is perfect; and in five or six months more, the central have terminated their formation, and the lateral are far advanced. *Cuspids.*—Their summit, in the fourth month, exhibits the first point of its induration; in the sixth, the crown usually begins assuming its destined form; two thirds of it are distinct at birth; and when the infant has arrived at the middle of its first year, not more than two-thirds of the root has been formed. *Small Molars.*—Their body is quite well defined in the fourth month; in the sixth, their tubercles are visible, and in some the process of induration has evidently commenced; their tubercles, at birth, are very distinct; in the first molar teeth sometimes five tubercles become manifest, while these of the second also are well formed and conjoined at their base by a layer, which is not yet perfectly indurated; by the end of the fifth month, the growth of their roots has made considerable progress. *Large Molars.*—In the fourth month of the fœtal state, the first of these has imperfectly assumed its elemental form; at birth, it possesses no trace of induration; about the end of the sixth month of infancy, the crown of the first is indurated, and the second is much enlarged.

Immediately after induration is established in the first small molar tooth, that process commences in the incisors and cuspids of the permanent dentition. It proceeds in the following order: the interior incisor, in the sixth month after birth—the exterior incisor and the cuspid, between the seventh and ninth months—the anterior small molars, during the second year—the second small molars in the third—and the last of the large molars, usually in the ninth. This process always begins in the lower teeth, both of the deciduous and permanent sets.

(*To be continued.*)

Useful Hints relative to Bedclothes, Mattresses, Cushions, &c.

The purity of feathers and wool employed for mattresses and cushions ought to be considered as a first object of salubrity. Animal emanations may, under many circumstances, be prejudicial to the health; but the danger is still greater, when the wool is impregnated with sweat, and the excrementitious parts of persons who have experienced putrid and contagious diseases. Bedclothes, and the wool of mattresses, therefore, cannot be too often beat, carded, cleaned, and washed. This is a caution which cannot be too often recommended.

It would be very easy in most situations, and very effectual, to fumigate them with muriatic gas.

Clean castors and a clean table cloth, are essential ingredients to domestic happiness.

SPORTING OLIO.

Pedigrees of Thorough-bred Horses.

Furnished for "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

The noted horse President,

Will stand the ensuing season, at the subscriber's in Dinwiddie county, Va. and will be let to mares at ten dollars the season, or five dollars the leap, and 1s. 6*d*. to the groom. Mares may be insured for twenty dollars.

President is a beautiful dapple grey, rising eight years old, upwards of 15½ hands high, and for proportion and symmetry of parts, inferior to no animal of his kind.

Feb. 15th, 1796. Drury Jones.

President was got by the noted imported horse Clockfast, his dam "old Poll" by the imported horse Fearnought, his grandam by old Partner—his great grandam by old Jolly Roger, out of the noted imported mare Mary Grey. Poll's dam brought the noted running mare Betsy Baker; she also brought Colonel Claiborne's Flimnap, that was supposed by good judges to be equal in the four mile heats to any horse in this country.

President himself has always run with success. He distanced three fine horses at Newbern with ease. He also took a purse at Hicksford, after covering the whole season, where he beat Major Claiborne's mare and others.

ECLIPSE,

Will be let to mares at forty-eight shillings for the ensuing season, and twenty-shillings the leap, the latter to be paid down. The season to commence the 20th instant and expire 15th August ensuing. Notes must be sent with the mares, payable to the subscriber, 1st October next.

William Cole.

Prince George, Va., March, 1796.

Eclipse was got by the imported horse Obscurity, his dam by Apollo, his grandam by old Valiant, and his great grandam by Tryall. Eclipse is a very fine chestnut sorrel, sixteen hands high, rising six years old. His beauty, elegant figure and strength are too well known in the neighbourhood of Petersburg, to require further description. W. C.

PORTO-BELLO,

Now in high perfection, full fifteen hands three inches high, rising four years old, will cover mares this season, at the subscriber's, in Dinwiddie county, near Sappony church, at four dollars the season and eight dollars the insurance. The greatest attention paid to mares sent to him.

Belfield Stark.

Porto-Bello was got by Commutation, his dam was the famous running mare known by the name of Walker's Flimnap, whose blood and extraordinary performances on the turf, make a further description unnecessary.

March 7, 1796.

COMMUTATION,

A fine bay, sixteen hands, most elegantly formed, will stand at my stable in Lunenburg county, and will be let to mares at eight dollars the season, or four dollars the leap. Notes will be expected with the mares, payable the 1st December next. Good pasturage gratis, but I will not be answerable for accidents or escapes. The season will expire 1st August next. Sam'l Jordan.

March 12th, 1796.

Pedigree.—I hereby certify that Commutation was got by Colonel Syms' noted horse Wildair, his dam by Colonel Tayloe's Yorick, his grandam by Little David, (a horse bred by Colonel Tayloe from his English horse Childers and Jenny Cameron,) his great grandam by Morton's Traveller, and his g. g. grandam was the famous English running mare known by the name of Oxnard's Muslin Face, imported by Mr. Morton, for whose performances in England, consult the stud books.

January 21st, 1788. John Belfield.

I hereby certify that I trained the above horse Commutation, and from repeated trials with the best horses in the state, I am of opinion that he was not only the fleetest, but the best winded horse I ever had charge of.

April 9th, 1791. Henry Young.

The imported horse Herod,

A handsome grey, of elegant form, rising four years old, and near fifteen hands high, will stand the ensuing season at the farm of Richard Randolph, Jun., in Cumberland county, on Appomatox river, and will be let to mares at the moderate price of sixteen dollars the season. Well inclosed and extensive pasturage, equal to any in Virginia, and the greatest attention assured to mares, but no responsibility for escapes or other accidents.

William Hylton.

Pedigree.—Herod was got by Young Herod, son of the famous old Herod, out of one of Lord Clermont's stud, a daughter of Conductor, his sire so well known and distinguished on the turf, was out of a Matchem mare, daughter of Florizel. In point of blood he cannot be excelled, being from the first running stock in England.*

March 7th, 1796. Wm. Hylton.

WILDAIR, FIGURE, &c.

Mr. Skinner, *Barnum's hotel, May* 18, 1828.

Dear Sir,—I thank you for the sheets of the American Farmer, which you sent me.

I will correct a few *immaterial* errors, which, I perceive, you have been led into by some of your correspondents. In the pedigree of Diana, (May 9th,) the imported horse Wildair is said to be sired by Fearnought, he by Regulus, and he by the Godolphin Arabian. Wildair was got by Cade, and he by the Godolphin Arabian. I do not know when Wildair was imported into this country, but I recollect seeing a colt (Col. J. Sim's Wildair, very large and elegant,) got by him, win a purse at Upper Marlborough, in May, 1768. He afterwards belonged to Col. John Weems, of Calvert county. He was good at a single four miles' heat, but did not repeat well. Wildair was also sire of Mr. Delancey's Sultana; she made a good race at Annapolis in October, 1773, but was beaten by Dr. Hamilton's Primrose in three three-mile heats. Sultana won the second heat. Wildair was afterwards sent back to England, and covered high, but never, I believe, for fifty guineas. His stock was not capital. He was beat by Sportsman before he was imported into this country.

Mr. Bond, although fond of the turf, and the owner of some very fine horses, knew but little of the best runners in England. He mentions Eclipse and Herod as the two best horses England ever produced. Childers and Eclipse were the two best and fleetest horses that England ever produced. Herod, although a good racer and celebrated stallion, was inferior to many. He was the hindmost of *six* that run for a purse in May, 1766, which was won by bay Malton in seven minutes, forty-three seconds. Jenkin and Royal George were second and third; the other two are not recollected.

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* This pedigree cannot be understood.

Figure was imported by Dr. Hamilton in the fall of the year 1765. In April, 1766, he won the purse at Annapolis, in four four-mile heats, beating Mr. Calvert's Regulus, Mr. Bullen's Sterling, and some others. Regulus won the first heat, Figure the second, Sterling the third, and Figure the fourth, beating Sterling six inches only. It was thought that Figure had not recovered his strength and agility. In May, 1768, he won the purse at Upper Marlborough, beating Mr. Galloway's Selim, Mr. Thornton's Moneyman, and Mr. Thomas's Buckskin. These two are the only races Figuro ran in America. He was eleven years old in 1768. Dr. Hamilton sold him, a few years afterwards, to a gentleman (I believe Col. Head) in New Jersey. He was sire of Mr. Gibson's Cub mare. She won many races and was seldom beaten.

Of Figure's pedigree, I know but little. He was a bay, and the handsomest horse I ever saw. He took his name from his form. He was got by a gray, called Old Figure, he by an Arabian called Bashaw, and afterwards re-named Old Standard. The dam of Dr. H's Figure was got by Young Standard, probably a son of Old Standard.

When I go to Annapolis I will get his pedigree, if to be obtained.

Mr. Gitting's gray horse [Chesapeake,] was got by Sweeper, and when very young he was owned by Peregrine Freeland, of Calvert county. Perhaps he bred him.

With respect and esteem, G. D.

OLD FIGURE.

J. S. Skinner, Esq. *May 9th*, 1828.

Dear Sir,—As you have made use of my name in a certificate of the time a four mile heat was run at Washington, by Floretta, First Consul and Oscar, which I remember well, as I held one of the stop-watches, and a very correct one, it was agreed by all to be the time you mention. But I wish to say, that Figure, Dr. Hamilton's horse, had done running in 1769. I then went to school near the brick church, between Queen Ann and Marlborough, and was, at every race run there, with my old bed-fellow and class-mate, Governor Bowie, and only once saw him led out on the course to shew. He was at Annapolis in 1770, I know, to shew and think that his race with Galloway's Selim was in 1767, but am not certain—I think it was the last he run. Yours, respectfully, J. T

MISCELLANEOUS.

LIVERWORT.

The Winchester (Va.) Republican furnishes additional evidence in favour of the use of Liverwort, as a cure for the consumption. The certificate of Mr. John Mitchell, of that town, states, that for five years he was in a gradual decline; was afflicted with a distressing cough and pains in the breast and shoulders, and all the other symptoms of a person in the last stage of a consumption. Reduced almost to a skeleton, and abandoned by his physician, preparations were made for his funeral, as it was confidently believed that he could not survive one hour. He was persuaded, reluctantly, however, to use the liverwort, and in twenty-four hours he experienced relief, and in three weeks had a fair prospect of being soon restored to health. He now enjoys excellent health and appetite, and attributes his restoration entirely to the use of the liverwort.

[*Philad. Gaz.*

Before thou censurest others, look into thine own heart, and ask thyself whether it is clear of the same fault.

Politeness costs but little, and procures much.

INSPECTIONS OF WHEAT FLOUR.

(From the Philadelphia Price Current.)

Port of Inspection.	1820	1821	1822	1823	1824	1825	1826	1827
Philadelphia,	400,814	396,066	271,396	302,203	301,338	294,289	342,250	351,517
New-York,	267,365	258,902	342,825	347,876	360,511	416,611	527,698	625,082
Baltimore,	577,058	485,818	429,377	442,468	544,870	510,425	596,348	572,759
Alexandria, D. C.,	233,505	208,507	171,577	102,819	133,024	170,711	178,755	140,447
Georgetown,	107,872	92,208	68,197	55,565	69,294	52,964	78,920	66,044
Richmond,	152,924	187,360	102,424	111,526	99,128	173,203	113,786	121,664
Petersburg,	56,593	55,577	38,553	28,496	54,072	87,818	30,000	17,900
Fredericksburg,	81,478	72,912	55,466	52,036	51,268	56,011	34,707	35,600
New-Orleans,			120,159	114,735	100,920	110,516	129,094	131,096
Total Inspections,	1,877,109	1,707,350	1,599,978	1,557,724	1,714,410	1,882,611	2,031,558	2,061,459
Exported from the United States	1,177,036	1,056,118	827,865	756,702	996,792	813,906	857,820	865,491
Consumption of Inspected flour	700,073	651,232	772,108	801,022	717,618	1,068,705	1,173,738	1,195,968

RECIPES.

REMEDY FOR THE BITE OF SNAKES.

Department of War,
Office Indian Affairs, 10*th May*, 1828.

To J. S. Skinner, Esq.

Dear Sir,—I inclose herewith, for publication in the American Farmer, a copy of a letter from Mr. David Jones, of Wellsburg, in which he names the wild indigo, (*Podalyria tinctoria*,) as a specific against the effects of bites of snakes, stating the manner of applying it. Every body knows the wild indigo, it being so frequently resorted to, to protect horses from the bites of flies, by being gathered and put about their heads and necks.

Very truly yours,
THO. L. McKENNEY.

—

Wellsburg, April 20, 1828.

To Thomas L. McKenney, Esq.

Sir,—In looking over a New York paper, a few days ago, I saw an order said to have been issued, by directions of the War Department, from your office, inquiring of the different Indian agents, to know what remedies were used by the Indians, for the bites of mad-dogs and snakes. My acquaintance, from eight to twelve years, with the manners and customs of the Indians, has given me an opportunity of becoming acquainted with many cures used by them, which enables me to answer your inquiries in part. Two cases of snake-bites came under my own inspection.

The most quick and safe remedy used by the Indians, is as follows: Take the wild indigo, bruise it and put it on the bite; then follow it with a strong decoction made of the same plant; continue to keep the wound well saturated with the decoction, and in a short time it will extract all the poison. I have found the indigo on many of the tributary streams of the Ohio, and it is to be found in most countries that are inhabited by the rattle and copper snakes. With great esteem,

I am, sir, yours, &c.
DAVID JONES.

THE FARMER.

Baltimore, Friday, May 23, 1828.

Steam Printing Presses.

Being called to the seat of government, a few days since on business, we casually visited the extensive printing establishment of the National Intelligencer, and had the pleasure of witnessing the operation of the newly invented machine printing presses, which are moved by steam. Our surprise was so great on beholding the movements of this ingenious and admirable machinery, that we have thought a brief notice of it would not be out of place in our paper. These presses are the invention of Mr. Daniel Tredwell, of Boston. They may be propelled by any power. The four set up by Messrs. Gales & Seaton, are moved by a beautiful high-pressure steam-engine of about five-horse power. They each strike off about five hundred sheets an hour, and each press is attended by two girls, one to supply the paper, and one to take off the sheets as fast as they are printed. The pressure is given perpendicularly by a carn, acting on a toggle-joint, and not by a cylinder. The inking apparatus is peculiar and simple, but most ingenious; and the perfect distribution of the ink, before it is imparted to the types, is a principal cause of the superior beauty of the printing over that of other presses. The English have invented various machines on the cylinder principle, for printing newspapers (only) with wonderful rapidity; but Mr. Tredwell's press is the only kind which, as far as we know, has been invented for book-printing, and this it executes of the finest kinds and in the most beautiful manner. We understood from the proprietors, that they considered this the most valuable invention in printing presses, and the greatest benefit conferred on the art of printing since its discovery.

It was certainly most interesting to see four extensive and complicated machines in operation, by an invisible power, (the steam-engine being in a detached building and communicating with the presses by machinery under the floor of the press-room,) and to watch the ingenious combinations acting as if by conscious volition, to produce the results which are required. The cost of the four presses, we understood to have been about $5,000, the amount paid to the patentee for the privilege of using them, $3,000, and the steam-engine about $2,000—making an aggregate cost of from $10,000 to $11,000. The engine consumes about six bushels of Richmond or Potomac coal per day, and the attendance on the whole machinery, besides the two girls, is a superintendant of the presses and an engineer.

The enterprise originated in the desire of the proprietors to execute the Congressional printing with yet greater despatch, and their success, in that respect, is the admiration of all who have had any opportunity of estimating the wonderful rapidity and accuracy with which the largest public documents are stricken off.

☞Aware of the general and anxious solicitude produced by the news of the sickness of General Lafayette, the following extract is taken from the last letter received from that constant friend of America, to J. S. Skinner, Esq. of Baltimore, dated

"*Paris, March* 28, 1828.

"It is with a lively and deep regret that I have heard the death of General Brown—a few days before we have been informed of the loss of Governor De Witt Clinton. Distance does not soften the feelings of friends on those melancholy occasions. I have been very sick for upwards of two months. A bronchial inflammation, with the addition, for a few days, of a pleurisy, has confined me to my bed. I now am a convalescent, and begin to attend the Chambre des Deputés, where some, very inadequate to be sure, but real ameliorations are likely to take place. Remember me most affectionately to our friends at Baltimore and Washington."

Neat Farming on a Large Scale.

To the Editor of the American Farmer:

Sir,—Knowing your *penchant* for rural excursions, and rural scenery and occupations, I could not help wishing you had been of a large party of gentlemen, of which I had the pleasure to be one, on a visit to Harewood, by invitation from the munificent and hospitable proprietor of that, now, splendid estate. You could not easily imagine any thing which would be more useful and *demonstrative* to the listless agriculturist, than two well drawn pictures of Harewood; one representing what it *was*, the other what it *is*, as we viewed it on the 10th inst.

——————"But who can paint
Like nature? Can imagination boast
Amid its gay creation, hues like hers?"

The company made their appearance at different hours of the forenoon, in small parties, and as they successively arrived, rambled off, on foot, or on horseback, over extensive and verdant fields, where every thing that caught the eye, evinced the best taste and the highest degree of improvement; and what rendered these the more striking was, the miserable condition of poverty and barrenness that surrounded the farm on every side.

Its natural situation, stretching along the shores of the Gunpowder, and indented by creeks, "inhabited by fish of every species; and frequented by every fowl that nature hath taught to dip the wing in water"—is of itself extremely beautiful; whilst the fields of great size, covered with luxuriant crops of different grains and grasses, present various landscapes of extreme cleanliness and fertility; not surpassed, in these respects, it is believed, by any thing to be seen on the manors of the most opulent in England. The immense fields of red clover, were particularly conspicuous, being even as bowling greens and free from extraneous growth of any kind. The domestic animals, except a portion which had been lately bought of a large flock of sheep, were all in the highest plight.—The numerous herd of cattle are of the Devon blood, from the stock sent by Mr. Coke, of Norfolk, England, to the present fair Marchioness of Wellesley, uniform in their shape, and deep mahogany colour; but the *amateurs* of the party were most attracted by the many groups of *deer*, that, as evening approached, emerged from their shady retreats to graze in open field.

Perhaps you may say that money will buy any thing, but not so—it will not buy *taste* for its possessor; neither is its possession always accompanied with continued industry and becoming hospitality. It is the rare union of these precious qualities, that dignifies the object in whom they are concentrated, and commands for him the admiration and good will of all. I am satisfied from the levelness and natural quality of the land at Harewood, that the lands of the Eastern shore of Maryland may all be made extremely productive of *grass*; for, besides the prodigious crops of various kinds, that a few weeks more will make ready for the scythe, I should judge that there must now be there of the last year's crop, not less than one hundred tons in reserve.

A country which may be made, by its shells and its marle banks, abundant in grass, ought, of course to produce fine horses, cattle, grain, butter, cheese, &c.; and it is known that in the saltness of its atmosphere, that portion of our state possesses a peculiarity highly congenial to the growth of *sheep*, a branch of industry which, it is hoped, will be favoured by the new tariff. For those who cultivate *flat* land, another lesson may be learned at Harewood, where, by constant and *well conducted draining*, the *desideratum* of moisture *without saturation*, has been obtained. But Mr. Oliver's taste has been in nothing more remarkable than in the preservation and distribution of his *woods*, yet in *that*, nothing seems to be the fruit of *design; ars celare artem.* All seems to be the spontaneous work of nature. By the removal of a few trees at one point, a fine expanse of water is opened to the view, whilst a clump left on some rising ground, or a grove springing from an unsightly ravine, in another part of the farm, serve at once to preserve the land from washing, and to soften and beautify the prospect—

"Shade, unperceiv'd, so softening shade;
And all so forming an harmonious whole,
That as they still succeed, they ravish still."

But I repeat, I wish you had been with us; how much more you would have been gratified, than with this hasty and most imperfect sketch from

One of the Party.

☞The next meeting of the Trustees of the Maryland Agricultural Society, will be held at Oaklands, the residence of Thos. Oliver, Esq on Thursday next. A full meeting is desirable, as preliminary steps ought then to be taken in reference to the next Cattle Show.

☞ The following items give a striking sketch of the growing trade of the Susquehanna.

(From the Harrisburg Reporter, May 9.)

Trade of the Susquehanna.

Never within the recollection of our oldest inhabitants, has so much produce come down the Susquehanna as this spring. For the last two weeks the river opposite Harrisburg has been like a floating world. Ark loads of wheat have been sold here during the present week at *seventy-five cents* per bushel—lumber commands the following prices, viz:

Best pannel boards (per 1000 feet,)	$15
do. common,	10
do. Shingles per 1000,	8

Our industrious and enterprising fellow citizens to the north and west have now a choice of markets, heretofore unknown to them. Middletown, in consequence of its being at the head of the Union Canal, has become quite a place of business. Several gentlemen of capital from Philadelphia have located there, and the liberal prices they offer for produce, have stimulated our capitalists here, and have excited a proper spirit of competition in Marietta and Columbia.

(From the Marietta Pioneer, May 9.)

In the beginning of this week, our river presented a pleasing sight to the lover of trade. For a distance of several miles, the shore was lined with rafts and arks, laden with all kinds of produce; in many places, the arks and rafts lay nine and ten abreast, and the number of crafts was variously estimated at from five to eight hundred. One of the rafts which we saw measured, was two hundred and twenty-five feet long, putting us in mind of a huge sea serpent as it lay gracefully bent to suit the sinuosities of the shore. Shingles and locust posts are, we believe, more abundant than they have been for a few years past. The river is in excellent order, and many of the rafts are perfectly mammoth in quantity and variety, as there is at present, no danger of getting aground.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No 4, Bowly's wharf.

The following sales of tobacco have been made this week—140 hhds Ohio, average $7; 15 hhds do. at $10. A crop of Maryland brown, at $4; do. of same description at $4.25. A lot of Cuba at $20. The Inspection of the past week, at the three State Warehouses in Baltimore, 346 hhds. Maryland, 87 Ohio, and 15 Kentucky.

Tobacco.—Scrubs, $3.00 *a* 6 00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5 50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3 50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat 87 *a* .92—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—Corn, .32 *a* .34—Rye, .50 Oats, 20 *a* .22—Beans .80 *a* 1.00—Peas, .40 *a* .50—Clover seed, 3.00 *a* 3.50—Timothy, 1.25 *a* 2.00—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, .21 *a* 22—in bls. 23 *a* 24—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75 *a* 6.00; do. trimmed, 6.50—Herrings, No. 1, bbl. 2.50 *a* 2.75; 2, 2.25 *a* 2.50—Mackerel, No 1, 5 25 *a* 5.50; No 2, 2.25; No. 3, 4.50—Bacon, hams, Balt cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1 25 per bbl.

Marketing—Apples, bush. 2 00 *a* 2.50; Butter, lb. .31, *a* 37½; Eggs, dozen, 10; Turnips, bush. .37½; Potatoes do. 50; Onions, do .50; Chickens, doz. 2.00 *a* 2.50; Beef prime pieces, lb. .8 *a* .10; Veal. .8; Mutton, .6¼ *a* .7; Pork, 4.50 *a* 5 00; Shad, per pair, 18¾ *a* 25; Green Peas, per bush .75 *a* 1 00; Radishes, bunch, 2 *a* 3; Lettuce, large heads, .3 *a* .4; Cauliflowers, do. 25 *a* 37½; Parsnips, bush. 75; Carrots, .75; young Ducks, per doz. 2.50 *a* 3.00; Turkies, 87½ *a* 1.12½; young Lambs, dressed, 1 75 *a* 2.00; do. Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Strawberries, per quart, 31¼ *a* 37½; Gooseberries, do .18 *a* 20; Currants, do. .12½.

Hay, per ton, $10.00; Rye Straw, 5.50 *a* 6.00; Cut Grass, per bundle, .10 *a* .12½

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AGRICULTURE.

NEW TARIFF BILL.

An act in alteration of the several acts imposing Duties on Imports.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, from and after the first day of September, one thousand eight hundred and twenty-eight, in lieu of the duties now imposed by law, on the importation of the articles hereinafter mentioned, there shall be levied, collected, and paid, the following duties; that is to say:

First. On iron, in bars or bolts, not manufactured, in whole, or in part, by rolling, one cent per pound.

Second. On bar and bolt iron, made wholly, or in part, by rolling, thirty-seven dollars per ton: *Provided,* That all iron in slabs, blooms, loops, or other form, less finished than iron in bars or bolts, except pigs or cast iron, shall be rated as rolled iron in bars or bolts, and pay a duty accordingly.

Third. On iron, in pigs, sixty-two and one-half cents per one hundred and twelve pounds.

Fourth. On iron or steel wire, not exceeding number fourteen, six cents per pound, and over number fourteen, ten cents per pound.

Fifth. On round iron, or braziers' rods, of three-sixteenths to eight-sixteenths of inch diameter, inclusive; and on iron in nail or spike rods, slit or rolled; and on iron in sheets, and hoop iron; and on iron slit or rolled for band iron, scroll iron, or casement rods, three and one half cents per pound.

Sixth. On axes, adzes, drawing knives, cutting knives, sickles, or reaping hooks, scythes, spades, shovels, squares, of iron or steel, bridle bits of all descriptions, steelyards and scale beams, socket chissels, vices, and screws of iron, for wood, called wood screws, ten per cent. ad valorem, in addition to the present rates of duty.

Seventh. On steel, one dollar and fifty cents per one hundred and twelve pounds.

Eighth. On lead, in pigs, bars, or sheets, three cents per pound; on leaden shot, four cents per pound; on red or white lead, dry or ground in oil, five cents per pound; on litharge, orange mineral, lead manufactured into pipes, and sugar of lead, five cents per pound.

Sec. 2. *And be it further enacted,* That, from and after the thirtieth day of June, one thousand eight hundred and twenty-eight, there shall be levied, collected, and paid, on the importation of the articles hereinafter mentioned, the following duties, in lieu of those now imposed by law.

First. On wool unmanufactured, four cents per pound; and, also in addition thereto, forty per cent. ad valorem, until the thirtieth day of June, one thousand eight hundred and twenty nine; from which time, an additional ad valorem duty of five per cent, shall be imposed, annually, until the whole of said ad valorem duty shall amount to fifty per cent. And all wool imported on the skin, shall be estimated as to weight and value, and shall pay the same rate of duty as other imported wool.

Second. On manufactures of wool, or of which wool shall be a component part, (except carpetings, blankets; worsted stuff goods, bombazines, hosiery, mits, gloves, caps, and bindings,) the actual value of which, at the place whence imported, shall not exceed fifty cents the square yard, shall be deemed to have cost fifty cents the square yard, and be charged thereon with a duty of forty per centum ad valorem, until the thirtieth day of June, eighteen hundred and twenty-nine, and from that time, a duty of forty-five per centum ad valorem: *Provided,* That, on all manufactures of wool, except flannels and baizes, the actual value of which, at the place whence imported, shall not exceed thirty-three and one third cents per square yard, shall pay fourteen cents per square yard.

Third. On all manufactures of wool, or of which wool shall be a component part, except as aforesaid, the actual value of which, at the place whence imported, shall exceed fifty cents the square yard, and shall not exceed one dollar the square yard, shall be deemed to have cost one dollar the square yard, and be charged thereon with a duty of forty per centum ad valorem, until the thirtieth day of June, eighteen hundred and twenty-nine, and from that time a duty of forty-five per centum ad valorem.

Fourth. On all manufactures of wool, or of which wool shall be a component part, except as aforesaid, the actual value of which, at the place whence imported, shall exceed one dollar the square yard, and shall not exceed two dollars and fifty cents the square yard, shall be deemed to have cost two dollars and fifty cents the square yard, and be charged with a duty thereon of forty per centum ad valorem, until the thirtieth day of June, eighteen hundred and twenty-nine, and from that time a duty of forty-five per centum ad valorem.

Fifth. All manufactures of wool, or of which wool shall be a component part, except as aforesaid, the actual value of which, at the place whence imported, shall exceed two dollars and fifty cents the square yard, and shall not exceed four dollars the square yard, shall be deemed to have cost, at the place whence imported, four dollars the square yard, and a duty of forty per cent. ad valorem shall be levied, collected, and paid, on such valuation, until the thirtieth day of June, one thousand eight hundred and twenty-nine, and from that time a duty of forty-five per centum ad valorem.

Sixth. On all manufactures of wool, or of which wool shall be a component part, except as aforesaid, the actual value of which, at the place whence imported, shall exceed four dollars the square yard, there shall be levied, collected, and paid, a duty of forty-five per centum ad valorem, until the thirtieth day of June, one thousand eight hundred and twenty-nine, and from that time, a duty of fifty per centum ad valorem.

Seventh. On woollen blankets, hosiery, mits, gloves, and bindings, thirty-five per ct. ad valorem. On clothing, ready made, fifty per cent ad valorem.

Eighth. On Brussels, Turkey, and Wilton carpets and carpetings, seventy cents per square yard. On all Venitian and ingrain carpets or carpeting, forty cents per square yard. On all other kinds of carpets and carpeting, of wool, flax, hemp, or cotton, or parts of either, thirty-two cents per square yard. On all patent printed or painted floor cloths, fifty cents per square yard. On oil cloth, other than that usually denominated patent floor cloth, twenty-five cents per square yard. On furniture oil cloth, fifteen cents per square yard. On floor matting, made of flags or other materials, fifteen cents per square yard.

Sec. 3. *And be it further enacted,* That, from and after the thirtieth day of June, one thousand eight hundred and twenty-eight, there shall be levied, collected, and paid, on the importation of the following articles, in lieu of the duty now imposed by law.

First. On unmanufactured hemp, forty-five dollars per ton, until the thirtieth day of June, one thousand eight hundred and twenty-nine, from which time, five dollars per ton in addition, per annum, until the duty shall amount to sixty dollars per ton. On cotton bagging, four and a half cents per square yard, until the thirtieth day of June, one thousand eight hundred and twenty-nine, and afterwards, a duty of five cents per square yard.

Second. On unmanufactured flax, thirty-five dollars per ton, until the thirtieth day of June, one thousand eight hundred and twenty-nine, from which time, an additional duty of five dollars per ton, per annum, until the duty shall amount to sixty dollars per ton.

Third. On sail duck, nine cents the square yard; and, in addition thereto, one half cent yearly, until the same shall amount to twelve and a half cents per square yard.

Fourth. On molasses, ten cents per gallon.

Fifth. On all imported distilled spirits, fifteen cents per gallon, in addition to the duty now imposed by law.

Sixth. On all manufactures of silk, or of which silk shall be a component material, coming from beyond the Cape of Good Hope, a duty of thirty per centum ad valorem; the additional duty of five per centum to take effect from and after the thirtieth day of June, one thousand eight hundred and twenty-nine; and on all other manufactures of silk, or of which silk shall be a component material, twenty per centum ad valorem.

On indigo, an additional duty of five cents the pound from the thirtieth day of June, one thousand eight hundred and twenty-nine, until the thirtieth day of June, one thousand eight hundred and thirty, and from that time an additional duty of ten cents each year, until the whole duty shall amount to fifty cents per pound.

Sec. 4. *And be it further enacted,* That from and after the thirtieth day of June, one thousand eight hundred and twenty-eight, no drawback of duty shall be allowed on the exportation of any spirit, distilled in the United States, from molasses; no drawback shall be allowed on any quantity of sail duck, less than fifty bolts, exported in one ship or vessel, at any one time.

Sec. 5. *And be it further enacted,* That from and after the thirtieth day June, one thousand eight hundred and twenty-eight, there shall be levied, collected and paid, in lieu of the duties now imposed by law, on window glass, of the sizes above ten inches by fifteen inches, five dollars for one hundred square feet: *Provided,* that all window glass imported in plates or sheets, uncut, shall be chargeable with the same rate of duty. On vials and bottles, not exceeding the capacity of six ounces each, one dollar and seventy-five cents per groce.

Sec. 6. *And be it further enacted,* That from and after the thirtieth day of June, one thousand eight hundred and twenty-eight, there shall be levied, collected, and paid, in lieu of the duties now imposed by law, on all imported roofing slates, not exceeding twelve inches in length by six inches in width, four dollars per ton; on all such slates exceeding twelve, and not exceeding fourteen inches in length, five dollars per ton; on all slates exceeding fourteen, and not exceeding sixteen inches in length, six dollars per ton; on all slates exceeding sixteen inches, and not exceeding eighteen inches in length, seven dollars per ton; on all slates exceeding eighteen, and not exceeding twenty inches in length, eight dollars per ton; on slates exceeding twenty inches, and not exceeding twenty-four inches in length, nine dollars per ton; and on all slates exceeding twenty-four inches in length, ten dollars per ton. And that, in lieu of the present duties, there be levied, collected and paid, a duty of thirty-three and a third per centum ad valorem, on all imported cyphering slates.

Sec. 7 *And be it further enacted,* That all cotton cloths whatsoever, or cloths of which cotton shall be a component material, excepting nankeens imported direct from China, the original cost of which at the place whence imported, with the addition of twenty per cent. if imported from the Cape of Good Hope, or from any place beyond it, and of ten per cent. if imported from any other place, shall be less than thirty-five cents the square yard, shall, with such addition, be taken and deemed to have cost thirty-five cents the square yard, and charged with duty accordingly.

Sec. 8. *And be it further enacted,* That in all cases where the duty which now is, or hereafter may be imposed, on any goods, wares or merchandises, imported into the United States, shall, by law, be regulated by, or be directed to be estimated or levied upon the value of the square yard, or of any other quantity or parcel thereof; and in all cases where there is or shall be imposed any ad valorem rate of duty on any goods, wares or merchandises, imported into the United States, it shall be the duty of the collector within whose district the same shall be imported or entered, to cause the actual value thereof, at the time purchased, and place from which the same shall have been imported into the United States, to be appraised, estimated and ascertained, and the number of such yards, parcels or quantities, and such actual value of every of them, as the case may require: And it shall, in every such case, be the duty of the appraisers of the United States, and of every of them, and of every other person who shall act as such appraiser, by all the reasonable ways and means in his or their power, to ascertain, estimate and appraise, the true and actual value, any invoice or affidavit thereto, to the contrary notwithstanding, of the said goods, wares, and merchandise, at the time purchased, and place from whence the same shall have been imported into the United States, and the number of such yards, parcels or quantities, and such actual value of every of them, as the case may require; and all such goods, wares and merchandises, being manufactures of wool, or whereof wool shall be a component part, which shall be imported into the United States in an unfinished condition shall, in every such appraisal, be taken, deemed and estimated by the said appraisers, and every of them, and every person who shall act as such appraiser, to have been, at the time purchased, and place from whence the same were imported into the United States, of as great actual value as if the same had been entirely finished. And to the value of the said goods, wares and merchandise, so ascertained, there shall, in all cases where the same are or shall be charged with an ad valorem duty, be added all charges, except insurance, and also twenty per centum on the said actual value and charges, if imported from the Cape of Good Hope, or any place beyond the same, or from beyond Cape Horn; or ten per centum if from any other place or country: and the said ad valorem rates of duty shall be estimated on such aggregate amount, any thing in any act to the contrary notwithstanding: *Provided*, That in all cases where any goods, wares or merchandise, subject to ad valorem duty, or whereon the duty is, or shall be by law regulated by, or be directed to be estimated or levied upon the value of the square yard, or any other quantity or parcel thereof, shall have been imported into the United States, from a country other than that in which the same were manufactured or produced, the appraisers shall value the same at the current value thereof, at the time of purchase before such last exportation to the United States, in the country where the same may have been originally manufactured or produced.

Sec. 9. *And be it further enacted*, That, in all cases where the actual value to be appraised, estimated, and ascertained, as hereinbefore stated, of any goods, wares, or merchandise, imported into the United States, and subject to any ad valorem duty, or whereon the duty is regulated by, or directed to be imposed or levied on, the value of the square yard, or other parcel or quantity thereof, shall, by ten per centum, exceed the invoice value thereof, in addition to the duty imposed by law, on the same, if they had been invoiced at their real value, as aforesaid, there shall be levied and collected on the same goods, wares, and merchandise, fifty per cent. of the duty so imposed on the same goods, wares, and merchandise, when fairly invoiced: *Provided, always*, That nothing in this section contained shall be construed to impose the said last mentioned duty of fifty per centum, for a variance between the bona fide invoice of goods produced in the manner specified in the proviso to the eighth section of this act, and the current value of the said merchandise in the country, where the same may have been originally manufactured or produced: *And, further*, That the penalty of fifty per centum, imposed by the thirteenth section of the act, entitled "An act supplementary to, and to amend the act, entitled 'An act to regulate the collection of duties on imports and tonnage, passed the second day of March, one thousand seven hundred and ninety-nine, and for other purposes," approved March first, one thousand eight hundred and twenty-three, shall not be deemed to apply or attach to any goods, wares, or merchandise, which shall be subject to the additional duty of fifty per centum, as aforesaid, imposed by this section of this act.

Sec. 10. *And be it further enacted*, That it shall be the duty of the Secretary of the Treasury, under the direction of the President of the United States, from time to time, to establish such rules and regulations, not inconsistent with the laws of the United States, as the President of the United States shall think proper, to secure a just, faithful, and impartial appraisal of all goods, wares, and merchandise, as aforesaid, imported into the United States, and just and proper entries of such actual value thereof, and of the square yards, parcels, or other quantities thereof, as the case may require, and of such actual value of every of them: And it shall be the duty of the Secretary of the Treasury to report all such rules and regulations, with the reasons therefor, to the then next Session of Congress.

ANDREW STEVENSON,
Speaker of the House of Representatives.
SAMUEL SMITH,
President of the Senate, pro tempore.
May 19th, 1828: Approved:
JOHN QUINCY ADAMS.

COMPARATIVE VIEW OF THE TARIFF LAWS.

We have formed an abstract of the duties chargeable in conformity with the Tariff just adopted, and have also placed against the various articles, the rates of duty as fixed by the law of 1824, and as existing previous to that time. [*N. Y. Journal of Commerce.*

No.	Protecting Tariff of 1828.	Protecting Tariff of 1824.	Old Tariff of Revenue up to 1824.
1.	Iron, in bolts or bars, not rolled, 1 c per lb. - - - -	90 cts. cwt. or 112 lbs.	75c. 112 lbs.
	do rolled, also in slabs, blooms and loop, or otherwise, except pigs and cast iron, $37 ton, - - - - - - - -	$1,50 cwt.	$1,50 cwt
2.	do in pigs, 62½ cts cwt.	50c. cwt.	50c. cwt.
3.	Wire of iron or steel, not finer than No 14, 6 cts; finer than No 14, 10 cts. - - - -	Not finer than No. 18, 5c., finer, 9c.	Same.
4.	Round iron or braziers' rods, 3-16 to ⅝ inch, nail or spike rods, iron in sheets or hoops and slit or rolled for bands, casement rods, 3½ cts lb. -	3c. per lb.	$2,50c. cwt
5.	Axes, adzes, drawing knives, *cutting knives, sickles, or reaping hooks, scythes, spades shovels*, squares of iron or steel, bridle bits, steel yards, scale beams, socket chisels, vices and *wood screws*, 10 per cent additional - - -	Woodscrews, sickles, scythes, spades. 30 per ct., all other manufactures of iron, 25 per ct.	20 per ct.
6.	Steel, $1,50 cwt. - - - - - -	$1 cwt.	$1 per cwt
	Lead in pigs, bars, or sheets, 3 cts lb. - - - - - - - - -	2c. per lb.	1c per lb.
7.	do shot, 4 cts lb - - - - -	3½ do.	2c. do
8.	do red or white, dry, or ground in oil, 5 cts. lb. -	4 do.	3c. do

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(From a Correspondent.)

Notes, containing observations on the Tariff recently enacted by Congress—shewing the rate and amount of indirect taxation on the Agricultural interest:

No. 1—22 cents per cwt. increase above the last tariff.

No 2, 3, and 4—Not materially affecting the farmer

No. 5—The greater part of these implements are directly, or indirectly, agricultural. They are all raised by the tariff, ten per ct.; but as some pay 25, and others 30 per cent. at the present time, they will in future pay 35 and 40 per cent. Of this last rate are all those in italics; the others pay 35 per cent.

No. 6.—Raised in the duty [illegible] per cent. and of course in price.

No 7—Raised half a cent per pound.

No. 8.—Raised 20 per cent. in its cost.

No.	Protecting Tariff of 1828.	Protecting Tariff of 1824.	Old Tariff of Revenue up to 1824.
9.	do pipes 5 cts lb. - - - -	25 per ct.	20 per ct.
10.	Litharge, orange, mineral and sugar of lead, 5 cts. lb - -	15 per ct.	15 per ct.

The articles enumerated above are included in the first section of the new law, and are to be charged with the new duty from the first day of September next.—The following sections go into operation on the 30th of June next, except when otherwise specially provided:

No.	Protecting Tariff of 1828.	Protecting Tariff of 1824.	Old Tariff of Revenue up to 1824.
11.	Wool, (the same if on skins,) 4c lb. and 40 per ct adval. until June 30, 1829 then 5 per ct increase annually to 50 per ct. - - - - - - -	Costing not more than 10 c 15 per ct.; higher cost, 30 per cent.	15 per ct.
12.	Woollens, (wholly or in part,) except carpeting, blankets, worsted stuffs, bombazines, hosiery, mits, gloves, caps, and bindings, the value of which at the place whence exported, does not exceed 33⅓c. sq. yd, to pay 14 cts. sq yd; from 33⅓ to 50 cts. to be estimated at 50c.; from 50c. to $1, at $1: from $1 to $2½, at 2½; from $2½ to $4, at $4, and to be charged with 40 per ct duty until June 30, 1829, afterwards 45 per ct.; and exceeding $4, to be charged with 45 per ct until June 30, 1829, and afterwards with 50 per ct.; and all unfinished woollens are to be estimated at the same value as if finished. - - - - - - -	Costing less than 33⅓ c. sq. yd 25 per ct., all others 33⅓ per ct. ad val. on actual value or cost.	25 per ct.
13.	Woollen Blankets, 35 per ct.	25 per ct.	15 per ct.
14.	Hosiery, mits, gloves, and bindings, 35 per ct - - - -	33⅓ do do	25 do do
15.	Clothing ready made, 50 pr ct.	30 do do	30 do do
16.	Brussels, Turkey and Wilton Carpets, 70c. sq. yd - - -	50 c. sq. yd.	25 do do
17.	Venetian and ingrain carpeting, 40c sq yd - - - - - -	25 do do do	25 do do
18.	All other carpeting of wool, hemp, or cotton, or in part of either, 32c. sq. yd. - - -	20 c. sq. yd.	25 per ct.
19.	Patent printed or painted Floorcloths, 50c. sq. yd; other Oilcloths 25 per ct.: Furniture Oilcloths, and Floormatting of flags or other materials, 15c. sq yd. - - - - -	30 per ct.	30 do do
20.	Hemp, $45 ton, until the 30th June, 1829, then $5 addition annually until $60 - - -	$35 ton,	$30, ton.
21.	Flax, $35 ton until June 30, 1829, then $5 in addition annually until $60 - - - -	15 per cent	15 per cent
22.	Cotton Bagging, 4½ cts. sq yd. until June 30, 1829, then 5 cts sq yd, - - - -	3¾ c. sqr. yd.	20 per cent
23.	Sail Duck. 9 cts sqr. yd and ½ ct. addition yearly until 12½ cts., and no drawback on less than 50 bolts in one shipment.	15 per cent	Russia $2 ps. Ravens $1¼ Holland $½
24.	Distilled Spirits, 15 cts. gall additional, (the duty on spirits was not altered in '24.)	From grain. 1st pf. 42 c. gl. 2d 45 3d 48 4th 52 5th 60 higher 75	From other materials 38 cents 38 42 48 57 70
25.	Indigo, 5 cts additional from June 30, 1829, to June 30, 1830, and 10 cts. additional, per ann. until the whole duty shall be 50 cts.	15 cents	15 cents

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No. 9.—We cannot state the increase of duty, as the change is from an ad valorem rate to one specific.

No. 10.—In like manner as No. 9

No. 11.—As this is the only article that seems to protect the farmer, I will here state the operation of the tariff on raw wool. The advalorem duty varies with the original cost of the wool Thus, if the wool

Cost 10 cents per lb., a duty of 40 per cent. is 4 cents per lb.
Cost 20 cents do. do. 40 do. 8 do.
Cost 40 cents do. do 40 do 16 do.

In addition to the ad valorem duty, the wool pays 4 cts. per lb. weight, whether fine or coarse—therefore the whole duty upon wool costing 10 cents per lb will be 8 cents—costing 20 cents, the duty will be 12 cents—costing 40 cents, the duty will be 20 cents

No. 12—Increase of duty above the present duty 12 per cent, ultimately 17 per cent. If any man's coat last year cost 30 dollars, it will be increased by this tariff 3 dollars and 60 cents this year, and ultimately 5 dollars and 10 cents.

No. 13.—Increase of duty 10 per cent.

Nos 14, 15, 16, 17, 18, and 19.—Not very material to the farmer.

No 20—Ten dollars per ton protection; a mere nominal protection from the great superiority of Russia hemp

No. 21—As No. 20, nominal only

No. 22—Three-fourths of a cent increased at present: ultimately one and a quarter cent.

No. 23—Unimportant to the farmer; oppressive to the merchant.

No 24—Nominal protection to the farmer and distiller, and only nominal

No. 25—Not affecting the farmer materially; nominal protection to Southern planters.

No.	Protecting Tariff of 1828.	Protecting Tariff of 1824.	Old Tariff of Revenue up to 1824.
26.	Molasses, 10 cts gall and no drawback on the exportation of Spirits distill'ed therefrom.	5 cents gallon	5 cents gallon
27.	Manufactures of silk from beyond the Cape of G Hope, 30 per ct. after June 30th, 1829. [We do not see that the words "on all other manufactures of silk 20 per ct" produce any change from the present rate.]	25 per cent	15 per cent
28.	Window glass, larger than 10 by 15, and in sheets uncut, $5 per 100 feet	$4	$3,25
29.	Apothecaries' phials, not exceeding 6 oz. $1 75 gro.	$1a$1 25	20 per cent
30.	Slates for building, not larger than 12 by 6 in $4 ton, 12 to 14 in. long, $5, 14 to 16, $6; 16 to 18, $7, 18 to 20, $8, 20 to 24 $9, large, $10.	25 per cent	15 per cent
31.	Slates for schools, 33⅓ per ct	15	15
32.	Cotton Cloths except nankeens direct from China) of whatever cost, shall, with the addition of 20 per cent if beyond the Cape of Good Hope, and 10 per cent. if from other places be deemed to have cost 35 cts. per sq yard, and be charged with 25 per cent	Minimum under some conditions 30 cents with 25 per cent duty,	25 per cent.

THE TARIFF.

A misapprehension in regard to the date, or rather dates, when the provisions of the new Tariff law are to take effect, existing, it is important that the public should be apprised of the true state of the case.

An amendment (says the National Intelligencer,) was adopted in the Senate, *to the first section* of the bill, which postponed the time at which it is take effect, from the thirtieth day of June to the first day of September. This amendment, it is supposed; was *intended* to apply to the whole bill. Whether the distinction between the first section was accidental or otherwise, it is one of the features of the bill as it has passed. The first section embraces the duties on iron. in its various forms and fabrics, and lead; and the new duties on these articles do not take effect until the first day of September On the other articles of wool, manufactures of wool; hemp, and its manufactures; distilled spirits, window glass, vials and bottles, roofing slates, and cotton cloths, &c. the new duty is to take effect as proposed in the original bill, on the 30th day of June. The additional duty on indigo, of five cents per pound, is not to take effect until the 30th day of June, 1829; at the expiration of one year after which, an additional duty on that article is to take effect, at the rate of ten cents each year, until the whole duty shall amount to fifty cents per pound. [*N. York paper.*

COTTON BAGGING.

The letter which we subjoin on the subject of domestic manufactures, is from a southern member of the national legislature, to his friend in this county. [*Natchez Ariel.*

Senate, 14th March, 1828.

Dear Sir:—I send you to-day a No. of the Farmer on the production and consumption of cotton, and on the manufacture of it in the United States.

Mr. Dewees, of Kentucky, who sent the sample of bagging to Natchez, has obtained a patent for a machine for spinning this bagging. by which, he says that two boys and a man, will spin as much as twenty spinners of hemp. He is of opinion, that bagging can be made for six cents a yard, in addition to the price of the cotton. He is about to establish his machinery, and to commence his operations, and we shall soon see the effect. He is a practical man, and I have great confidence in its success. The southern states must come to the determination of making their bagging with their own labour and materials. This will produce a saving of near a million and a half of dollars, annually, to the latter states. I am very glad to see you have a just view of this subject, and you will render an acceptable service to the country, by introducing the machinery, and setting the example. I have no doubt it will rapidly spread through our southern region.

It requires some person of enterprise and capital, to take the lead in this business. I do not doubt its entire success.

The southern states begin to understand their true interests, and I refer you to the report from North Carolina.

There is nothing more true, than that slaves are capable of all the labour connected with manufactures, and that it is cheaper than white labour.

RED CLOVER.

Mr. Skinner, *Pendleton, S. C., May* 8, 1828.

Sir,—Allow me to state an agricultural fact which appears to me singular. About ten years since I obtained some red clover and timothy seed, from the north, which were sowed by way of experiment, on a piece of opland, part of which had been an old vegetable garden.

It grew very well, and remained three years, when it was ploughed op, and the ground put in sweet potatoes—since when it has been in constant and close cultivation, (with the exception of last year,) three or four years successively, in cotton, and one year in corn cultivated in a particular manner, with the view of making the greatest product.

In February last it was sown in oats, and the part which was the old garden (about an acre,) is now covered with a luxuriant crop of red clover, about knee high, and in bloom.

Is it peculiar to the red clover seed to remain such a length of time in the ground without losing its germinating quality? Or how has this growth been reproduced?

Very respectfully, yours,
JOHN E COLHOUN.

THE ANGORA GOAT.

Mr. Skinner, *City of Washington, May* 16, 1828.

1. I wish to ascertain whether any of the Cashmere, or Angora *goat*, that produce the fine hair, have been imported into the United States.

2 What part of the United States would be suited to the rearing of the goat?

3 What difficulties exist in procuring the goat—and what the probable expense?

Some person, through the medium of your paper, will much oblige me by answering the above interrogatories. W. HAILE.

(From Loudon's Encyclopædia of Agriculture.)

"*The Angora goat*, a native of Turkey, is chiefly valued for its exquisitely fine hair down, which grows under its coarse hair, and of which the Cashmere shawls are manufactured. The down is obtained by gently combing them. A considerable number of this breed were imported to France from Persia, in 1819, and stationed at St. Omers, with a view to their increase, and the establishment of the shawl manufacture. The kids of this flock are said to be abundantly covered with down and hair, and superior in strength and appearance to indigenous French kids of the same age. It is a common opinion, that the down of this goat degenerates when the animals are removed from the pasturage of Angora; but this is likely in part to arise from the neglect of cleaning and washing them, which at Angora is so assiduously attended to. By a late report of M. Terneaux to the Paris Agricultural Society, the French Angoras have increased in number, and prosper equally with the native variety."

[It is probable that the race might be obtained through the agency of our hospitable and patriotic minister at Paris—Mr. Brown.]

LATE FROST.

Mr. Skinner, *Dayton, Ohio, May* 15, 1828.

Sir,—The last number (7) of the Farmer, mentions very destructive frosts in Alabama, &c. about the 6th and 7th April. Here, on the 4th, 5th, 6th, and 7th, we had severe freezing; peaches and pears nearly all killed; some apples, plums and cherries left.

Vines not so far advanced at that time as to be hurt. Wheat, &c. safe and very promising.

Last year, between the 4th and 7th May, my vines, which had young shoots several inches long and full of embryo clusters were killed by frost—not only the young shoots, but the whole stock above ground. New shoots sprung up from just under the surface of the ground, and grew finely. These shoots, pruned this spring, are now full of fruit in promise—should they be spared from frost.

I imagine the vines of the correspondent mentioned in Mr. Herbemont's letter, (Farmer, No 7,) were in the situation of mine last year, and that they were not killed by late pruning, but by frost. May frost, I believe, will prove the greatest obstacle to the vine in this part of the country.

Respectfully, yours,
JOB HAINES.

Campbell's Station, Tenn., May 10, 1828.

Mr. Skinner,

Sir,—I wish to ascertain through the American Farmer, what effect the late frosts of the spring have had on the leaves of the mulberry tree. So far as I am informed, neither fruit nor leaf has been injured, although the fruit and leaf of every thing else, so far as I know, was destroyed.

JAMES MARTIN.

HORTICULTURE.

KITCHEN GARDEN—JUNE.

Sowing and planting are still requisite in many successional, and some main crops for autumn and winter; and in the crops now advancing, or in perfection, the business of hoeing, weeding, and occasional watering, will demand particular attention.

Planting is now necessary in several principal plants, for general succession summer crops, and main crops for autumn, winter, &c The whole in the open ground, except two articles, and those are cucumbers, and melon plants for the last crop in hot-bed ridges.

In the open ground plant cabbage, brocoli, borecole, savoys, coleworts, celery, endive, lettuce, cauliflowers, leeks, beans, kidney-beans, and various aromatic and pot-herbs, by slips, cuttings, or young plants. Showery weather is by far the best either for sowing or planting; and when it occurs lose no time in putting in the necessary crops wanting.

Keep your asparagus beds very clear from weeds, now commonly rising numerously therein, which will soon overspread, if not timely cleared out. Likewise new-planted asparagus, and seed-beds, should be carefully weeded. Cut the asparagus now in perfection, according as the shoots advance, three, four, or five inches high; which you may continue to do all this month.

Plant successional crops of beans in the begin-

No. 26.—Duty increased 100 per cent.—will cost 5 cents per gallon more than heretofore.

No. 27.—Increased, not for protection, but as a further premium on manufactures of cotton.

No. 28.—Not material to farmers

No 29.—Will increase the Doctor's bills from 500 to 5000 per ct., according to conscience.

No. 30. Immaterial to farmers.

No. 31.—Increased duty 108 per cent.

No 32.—Increases the duties upon all low-priced cottons, to eight and three quarter cents per square yard—in general, about seventy, eighty or ninety per cent. upon imported cottons.

ning, middle, and latter end of this month, some Windsors, long pods, white blossom, and Mumford kinds, or any others. If the weather is very hot and dry, soak the beans a few hours in soft water before you plant them. Hoe those of former planting, and draw the earth to the stems. Top those that are in blossom.

Your early cauliflowers, which will be now advancing in flower heads, must be watered in dry weather to make the heads large; and according as the heads show, break down some of the large leaves over them, to keep off sun and rain, that they may be white and close. Mark for seed some of the largest and best, to remain in the same place, to produce it in autumn.

The first main crops of celery must be now planted in trenches to blanch; the trenches to be three feet distance, a foot wide, and dig the earth out a spade deep, laying it equally to each side in a level order; then dig the bottom, and if poor and rotten, dung, and dig it in. Draw up some of the strongest plants, trim the long roots and tops, plant a row along the bottom of each trench four or five inches distance, and finish with a good watering.

In the beginning of this month sow a full crop of cucumbers in the natural ground to produce picklers, and for other late purposes in autumn; allotting a compartment of rich ground dug and formed into beds five or six feet wide; and along the middle, form with the hand shallow basin-like holes, ten or twelve inches wide, one or two deep in the middle, and a yard distant from each other; sow eight or ten seeds in the middle of each half an inch deep; and when the plants come up, thin them to four of the strongest in each hole to remain. Be careful frequently to water them when the weather is dry.

Sow the main crops of the green-curled endive, also a smaller supply of the white-curled, and large Batavia endive; each thin in open ground to plant out for autumn and winter.

Clear your onions from weeds, and give them a final thinning, either by hand, or small hoeing; the main crops to four or five inches distant; the others, designed for gradual thinning in summer leave closer, or to be thinned by degrees as wanted.

Sow more marrowfat peas, and some hotspurs, or rouncivals, and other large kinds. This is also a proper time to sow the leadman's dwarf pea, which is a great bearer, small podded, but very sweet eating. If the weather is very hot, either soak the seed, or water the drills before sowing.

Hoe between your potatoes to kill the weeds and loosen the ground; and draw the earth to the bottom of the plants.

Thin all close crops now remaining to transplant proper distances. Many sorts will now require it, as carrots, parsnips, onions, leeks, beet, spinach, radish, lettuce, turnip, turnip-radish, parsley, dill, fennel, &c. all which may be done by hand or small hoeing; the former may do for small crops but for large supplies the small hoe is not only the most expeditious, but by loosening the surface of the earth, contributes exceedingly to the prosperity of the plants.

HORTICULTURAL INSTITUTION.

Agreeably to public notice, the Horticultural Society of Philadelphia, met on Wednesday evening, and elected the following gentlemen, Officers. President, Horace Binney, Vice Presidents, James Mease, M. D. Mathew Carey, David Landreth, N. Chapman, M. D. Treasurer, Wm. Davidson, Corresponding Secretary, Samuel Hazard, Recording Secretary, D. S. Brown, Acting Committee, George Pepper, Nicholas Biddle, Thomas Biddle, R. Patterson, D. B. Smith, Moses Brown, M. C. Cope, Thomas Astley, David Landreth, Jr. Thomas Hibbatt, Thomas Landreth, Joshua Longstreth.

INTERNAL IMPROVEMENT.

(From the London Quarterly Journal of Science and the Arts, for April, 1828.)

ON THE INLAND NAVIGATION OF THE UNITED STATES OF AMERICA.

(*Continued from page* 77.)

To the second class of inland communications belong those intended to admit a navigation from the sea coast to the western states. These two great divisions of country are separated by very marked natural boundaries, in the form of mountains, dividing the streams that flow into the Atlantic from those falling into the Mississippi or into the great lakes. In Virginia, and the Carolinas, these mountains may be considered as forming four parallel chains; and in these states there is no valley that crosses all the ridges: indeed one of them may be considered as entirely continuous, and constituting a complete barrier to artificial navigation, except by the aid of long and difficult tunnels. In Pennsylvania, while the eastern chain of mountains remains distinct, the others spread out and become involved with each other, and the general aspect of the country becomes that of a high table land penetrated by a few large valleys. This great table terminates in the state of New York, and descends, by a series of steps, to the shores of Lake Ontario. Only a single ridge extends from this table land entirely across the state of New York, and even this is cut through at a great depth by the valley of the Mohawk river, at the Little falls. The easternmost of these chains of mountains is of primitive formation, and may be considered rather as a series of separate hills, than as one continuous ridge. Hence various streams of large size run through the intervening valleys, but none under circumstances to admit of an ascending navigation, except the Hudson. Its tributary, the Mohawk, breaks, as we have seen, through the sole remaining ridge by a valley opening from the great basin of Lake Ontario. Of all the other streams that flow towards the Atlantic, none pass through all the mountains with the exception of the Susquehanna, whose branch, the Tioga, rises on the western side of the table-land we have spoken of, and consequently, forces its way entirely through all the ridges. But the lower part of the Susquehanna is so much obstructed by rocks and rapids, that this circumstance is not likely to lead to any important practical advantage. The state of New York, therefore, in the deep navigable channel of the Hudson and the valley of the Mohawk, possesses natural facilities for opening a communication far beyond those of any other state.—These natural advantages were, as we have seen, noticed and partially improved at an early period. They have been finally completely developed by the construction of the great western canal, which affords a continuous and uninterrupted navigation from the Hudson to Lake Erie, and communicates also, by means of a lateral branch, with Lake Ontario, at Oswego. This canal is 363 miles in length; the difference of level between Lake Erie and the Hudson, is 564 feet; but the canal may be considered as divided into two great but unequal sections, one deriving its waters from Lake Erie, the other from a summit level in the vicinity of Utica. Lake Erie is made use of as a principal feeder from the mouth of the canal as far as Montezuma on Lake Cayuga, a distance of 67½ miles. The descent is 190 feet, by means of twenty-one locks. Beyond this point the canal rises 62 feet, by means of seven locks, to the summit level; this extends for a distance of sixty-nine miles of level and uninterrupted navigation. The descent to the Hudson is by fifty-three locks, twenty of which lie within the space of a few miles in the vicinity of the Cohos, or Great falls of the Mohawk, near its junction with the Hudson. Besides the lesser aqueducts and culverts by which this canal is carried over smaller streams, it crosses the Genessee river by an aqueduct of nine arches of fifty feet span, and the Mohawk twice by aqueducts of 748 and 1188 feet in length respectively.

The cost of this great work, up to the time it was opened for navigation, was nearly nine millions of dollars; seven millions and a half of which were raised by a loan, for the payment of the principal and interest of which the faith of the state was pledged, along with the receipts of several branches of revenue. These produce about ten per cent. upon the amount borrowed, and hence insure the liquidation of the debt within a period by no means remote. Thus, then, had the tolls on the canal been barely sufficient to keep it in repair, the construction of it was entirely within the reach of the ordinary resources of the state. But at the moment of its completion, the revenue derived from the tolls became so productive, as to show conclusively that the bare pledge of them would have sufficed, both to pay the interest and extinguish the debt. The income for the year 1826, the first after the navigation was opened from the river to the lake, amounted to 800,000 dollars; for the year ending 1st Jan. 1828, it will not fall short of a million. Hitherto, however, the immense receipts have, in a great measure, been absorbed by the canal itself, which can hardly be said to be finished even at the present moment. In the anxiety to reap the advantages its navigation promised, the work was pressed hastily, and, perhaps, prematurely to its conclusion. Hence much was unfinished—much required alteration and repair. The expenditure, however, of the last two years has gone far towards making the canal complete, and in a very short space of time, it will be supported at an expense no greater than attends the repairs and care of other similar works. The debt will then rapidly diminish, and it may be confidently anticipated that within ten years the state of New York will possess, free from incumbrance, a source of revenue more than four times as great as the largest amount of direct and indirect tax that has ever been levied. Two parties already exist in relation to the manner of disposing of this wealth, the one would urge its application to the ordinary expenses of the government, and to the extinction of burdens already insensible: the other, with wiser policy, would apply it to the extension of the system of internal improvements by means of canals and rail-roads diverging from the canal to all accessible portions of the state. The direct tax of the state of New York was no more than the thousandth part of the value of the property paying it. Under the influence of the former party, it has already been reduced to one half. This short sighted policy has, however, been opposed, and meets with deserved censure from the more intelligent. In reference to this question, we conceive we cannot do better than extract a portion of the message of Governor Clinton to the Legislature of New York, at the opening of their session in January, 1828. Coming from him, the great author of this successful system of policy, it is worthy of deep attention.

"Considering the high reputation, and the great name, which this state has derived from her internal improvements, it is equally astonishing and mortifying to observe elaborate and systematic attempts to depreciate their utility and arrest their progress. It is manifestly an uncandid and superficial view of the subject, to confine an estimate of its benefits to an excess of income above the interest of expenditure; and yet this standard of appreciation has been adopted. Artificial navigation was established for public accommodation, for the conveyance of articles to and from markets, and revenue is a subordinate object. It was never intended as a primary object to fill the coffers of the state, but to augment the general opulence, and to animate all the springs of industry and exertion, and to bring to every man's door an easy and economical means of access to the most advantageous places of sale and purchase. To narrow down this momentous and comprehensive subject to a mere question of dollars and cents, is to lose sight of the great elements of individual opulence, of public wealth and national prosperity. It excludes from consideration the one hundred millions of dollars, which have, in all probability, been added to the value of real estate—the immense appreciation of all the products of agriculture, which were formerly shut out in a great degree from market—the solid and extensive establishment of inland trade—the vast accessions to our marketable productions—the unbounded encouragement of our marine navigation and external commerce—the facility, rapidity, and economy of communication—the creation of a dense population, and the erection and increase of villages, towns, and cities, and the most efficient encouragement of agriculture and the arts, by a cheap supply of materials for fabrics, and of markets for accommodation. But if we were to overlook these important considerations, and confine ourselves to mere questions of revenue, we shall see enough to convince the most sceptical, that immense pecuniary benefits must flow from new channels of hydraulic communication with the Susquehanna, the Allegany, and the St. Lawrence, and their auxiliary and connecting waters, and by a great avenue or state road from the Hudson to Lake Erie."

The lateral canals mentioned in the above extract belong to another branch of our subject. This, together with the account of the remaining plans of communication between the Atlantic and Western states, we shall reserve for another paper.

The great canal of the state of New York terminates in Lake Erie, from which it opens a passage for barges of an hundred tons in-burthen. From the eastern extremity of this lake, an uninterrupted line of internal seas extend to the furthest limit of Lake Superior. The shores of these vast bodies of fresh water embrace a circuit of many thousand miles, every part of which is accessible for vessels of size fitted to bear the tempestuous weathers of these lakes. But one shore of the most of these lakes is occupied by another nation, whom proper considerations of policy will urge to divert the trade into the channel of the St. Lawrence. Much of the shores of these lakes, too, is unfitted in soil or climate to support a dense and wealthy population. The most important extrinsic source of the trade of the New York canal is therefore to be sought in the states that lie between the great lakes and the Ohio, and even in the extension of artificial navigation to the new countries west of Mississippi. Of these states, Ohio is alone in a position that can enable it to do much at the present period. Of all the states of the Union, it is yet the only one that has imitated, on a broad scale, the policy of the state of New York, in pledging its resources, in property and revenue, to pay the interest upon, and redeem loans to be applied to, internal improvement. With funds thus raised, a canal has been commenced, and is rapidly making from Cleaveland on Lake Erie to the junction of the Scioto river with the Ohio. Another is projected and actually commenced, from the navigable waters of the Maumee, which fall into Lake Erie, to those of the Miami, a branch of the Ohio. What has been executed of the first of these, has already produced a revolution of the trade of the state; as the tobacco that formerly descended the Mississippi to New Orleans, has been forwarded on cheaper terms to New York, and thence shipped to the staples of Virginia and Maryland. The success of this enterprise will probably lead to the establishment of a tobacco staple at New York.

In the early stage of the trade of the countries on the Ohio, their products were embarked in rude vessels that descended by that river and the Mississippi to New Orleans. Here the vessels were broken up for fuel, and the money arising from the sale of the merchandize remitted to Philadelphia or Baltimore: from these cities the returns in foreign manufactures were conveyed across the mountains to the Ohio, and on its waters to convenient points of distribution. The introduction of the steam boat produced a partial change, in permitting many articles to be conveyed up the Mississippi against its powerful stream. A third change is at hand, by which a great district will be brought into communication with New York, as a mart both of import and export; while another, equally extensive, will have it in its power to choose between that city and New Orleans, according to the circumstances of the season, using the former in summer, the latter during the winter months.

LADIES' DEPARTMENT.

THE SOLDIER'S CHILD.

An Affecting Tale.

I overtook on the road a regiment of Highlanders, then on their march for Cork, where they were to embark for the Netherlands.—It was a beautiful morning in the spring of 1815. The sun was shining bright, and their arms and accoutrements were glittering in his rays. The waving plumes, martial dress, military music, soon dissipated the clouds of despondency from an imagination young and ardent, and opened a long vista of glory. In a few moments fancy had glided over the whole career, and restored me high in rank, and covered with honours, to my native village, to my mother, and to my friends. The first step to this ideal promotion was easy obtained. In a few minutes I had the honour of being enrolled a private in the 78th Highlanders; and, before my arrival at Cork, was fully equipped in the garb of the warlike Celts.

I need not detain you with an account of my dull and uninteresting life, after our arrival in Belgium, previous to the memorable fight of Waterloo. The night before the battle I was pacing backwards and forwards, a solitary sentinel at one of our out-posts. There was a weight in the midnight atmosphere that spread an unwonted gloom over my soul. There was a silence throughout the whole of our army, which formed a striking contrast to the loud shouts of the enemy as they passed the night in carousing around their watch-fires. I should not, perhaps, call it silence and yet, it was something like it, but not the silence of sleep. The stern and sullen sound with which the word and countersign were exchanged; the low but deep tone in which the necessary orders for the following day were given, the sigh of contending feelings in the soul, which almost resemble the groans extorted by bodily pain from the wounded were all still more audible than the distant clang of the armourer, and the snorting and prancing of the steed, and showed that all around was waking watchfulness and anxiety.

About the middle of the night I received a visit from a young man with whom I had formed an intimate acquaintance. He was the only son of a gentleman of large property in the south of Ireland, but having formed an attachment to a beautiful girl in humble life, and married her against the will of his father, he had been disinherited and turned out of doors. The youth had soon reason to repent of his rashness. His wife was beautiful, virtuous, and affectionate; but her want of education, an entire unacquaintance with those polished manners and little elegancies of life to which he had been accustomed, soon dissolved much of the charm which her beauty and artlessness had at first thrown around him. After struggling for some time with poverty and discontent, he enlisted in a regiment of heavy dragoons; and, being ordered to the continent, left his wife, with an infant daughter, in a wretched lodging in London. Chance brought us together in Belgium; and a similarity of tastes soon produced a friendship.

Depressed as I was in spirit myself, I was struck with the melancholy tone in which he accosted me. He felt a presentiment, he said, that he would not survive the battle of the ensuing day. He wished to bid me farewell, and to intrust to my care his portrait, which, with his farewell blessing, was all he had to bequeath to his wife and child. Absence had renewed, or rather doubled, all the witching loveliness that had won his boyish affection. He talked of her, while the tears ran down his cheeks, and conjured me, if ever I reached England, to find her out, and make known her case to his father. In vain, while I pledged my word to the fulfilment of his wishes, I endeavoured to cheer him with better hopes. He listened in mournful silence to all I could suggest; flung his arms around my neck: wrung my hand, and we parted. I saw him but once again. It was during the hottest part of the next and terrible day, when, with a noise that drowned even the roar of the artillery, Sir William Ponsonby's brigade of cavalry dashed past our hollow square, bearing before them, in that tremendous charge, the flower of Napoleon's chivalry. Far ahead even of his national regiment, I saw the manly figure of my friend. It was but for a moment. The next instant he was fighting in the centre of the enemy's squadron: and the clouds of smoke that closed in masses round friend and foe hid him from my view. When the battle was over, and all was hushed but the groans of the wounded, and the triumphant shouts and rolling drums of the victorious Prussians, who continued the pursuit during the entire of the night, I quitted the shattered remains of the gallant regiment in whose ranks I had that day the honour of standing. The moon was wading through scattered masses of dark and heavy clouds, when I commenced my search for my friend. The light was doubtful and uncertain, yet it was easy to keep along the track that marked the last career of Ponsonby.—Shuddering, lest in every face I should recognise my friend, I passed by and sometimes trod upon the cold and motionless heaps, which now looked so unlike the "fiery masses of living valour" that a few hours before, had commingled with a concussion more dreadful than the earthquake's shock. Although I at first felt a certain conviction of his fate, I afterwards began to hope, that the object of my search had contrary to his prediction, survived the terrible encounter. I was about to retire when a heap of slain, in a ploughed field, on which the moon was now shining clearly, attracted my notice. Literally piled on each other, were the bodies of five cuirassiers;—and lying beneath his horse was the dead body of my friend. You may form some idea of my astonishment, on finding by a nearer inspection, that his head was supported and his neck entwined by the arms of a female, from whom also the spirit had taken its departure; but you can form no conception of the horror I felt at beholding, in this scene of carnage and desolation in the very arms of death, and on the bosom of a corpse, a living infant, sleeping calmly with the moon beams resting on its lovely features, and a smile playing on its lips, as if angels were guarding its slumbers and inspiring its dreams! And who knows but perhaps they were.

The conviction now flashed on my mind, that these were the wife and child of my unfortunate friend; and the letters we found on the person of the former, proved that I was right in my conjecture. Driven aside by the gale of pleasure or ambition, or by the storms of life, the affections of man may veer; but unchangeable and unchanging is a true heart in woman. "She loves and loves for ever." This faithful wife had followed her husband through a land of strangers, and over the pathless sea; through the crowded city and the bustling camp, till she found him stretched on the battle field. Perhaps she came in time to receive his parting sigh, and her spirit, quitting its worn out tenement of clay winged its way with haste to Him who gave them being. With the assistance of some of my comrades, I consigned the hapless pair to the earth, wrapped in the same military cloak: and enveloping the infant, this dear child of my adoption, in my plaid, I returned to the spot where our regiment lay.

Valuable Invention.

The London Courier announces the invention of a machine for cleaning knives and forks, by which that hitherto tedious process is so shortened, that three or four dozen of each may be cleaned in as many minutes.

SPORTING OLIO.

CANTON RACES—May 2, 1828.

First day—$200—3 mile heats between Bachelor and a Virginia horse; both heats won by Bachelor easily—slow time—bets many and even.

Second day—$150—This race was not so closely contested as expected—the prize was won by Mulatto Mary, beating Creeping Weazel and Snapper—time of the first heat, 4 ms. 8 sec.—Second heat, 4 ms. 2 sec. Snapper was distanced the first heat, and Creeping Weazel the second; the mare under a tolerable pull.

Third day—$100—This purse was contended for by Mark Time, Restless, Driver, and Florivel—1 mile heats, best three out of five. The following is the order in which the horses came in:

Restless, ...	1	1	1
Mark Time, ...	3	3	3
Florivel, ...	2	4	4
Driver, ...	4	2	2

Time—first heat, 1 m. 52 s.; second heat, 1 m. 50 seconds; third heat, 1 m. 49 s.

Pedigrees of Thorough-bred Horses.

Furnished for "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(*Continued from page 72.*)

37. Crawford, a fine dapple grey, 15 hands high. (an imported horse,) was bred by his Royal Highness the Duke of Cumberland, out of one of his brood mares, and from his own Arabian.
March 5, 1762. Robert Ruffin.

38. Buffcoat, imported last spring, will be seven years old next grass. Pedigree not given.
March, 1762. Edward Caster.

39. Lycurgus, near 14 hands 3 inches high, son of Morton's Traveller.
March, 1764. Benjamin Harrison.

40 Bucephalus, brown colour, full fifteen and a half hands high; he was got by Sir Matthew Witherston's horse Locust, his dam by old Cade, grandam by Partner, out of a thorough bred mare; he is now rising seven years old, and very strong.
March, 1764. Archibald Ritchie.

41. Whittington—pedigree not given. [Who can supply it?]
March, 1761. Andrew Cartle.

42. Bolton, a fine bay horse, belonging to the estate of the late Wm. Lightfoot, Esq., of Charles city, and bred by the Earl of Northumberland.
April, 1765.

43. David, a fine bay horse, fifteen hands high, well made, (no pedigree given,) but imported and descended from the best stock of horses in England.
May, 1765 Merriwether Smith.

44. Dotterell, a high formed horse, 15½ hands high; a healthy strong boned horse; he was imported; got by Changeling, his dam by a son of Wynn's Arabian, his grandam by a son of the Longsdale Arabian; his great grandam by the Black Arabian; his g. g. g. grandam by a son of the Bay Barb out of the Burton mare.

N B Changeling was as famous a horse as any in England, in every respect. The above pedigree was given by Sir John Pennington.

Philip Ludwell Lee.
Straford, Westmoreland county, Va., 1766.

45. Merry Tom, a beautiful bay, fourteen hands three inches high, imported; got by Regulus, his dam by Locust, (a son of Crab,) his grandam by a son of Flying Childers; his great grandam by Croft's old Partner. In 1762, he won 300 guineas sweepstakes, at Richmond; in 1763, he won 50*l.* at Durham, and the noblemen's and gentlemen's subscription, at Cowpar, in Scotland. He was bred by Wm. Parker, of Newcastle, England.

John Baird.
Prince George, Va., March, 1767.

46. Sampson, a black, upwards of fifteen hands high, five years old, got by Traveller, out of a fine English hunting mare.
April, 1767. John Wormeley.

47. Hob or Nob will cover this season, at Mr. Seth Ward's, Junr., in Chesterfield county, Virginia, at 15 shillings the leap, or 45 shillings the season. Good pasturage for mares, &c.
Ayril, 1767.

N. B. It is earnestly requested by the author of "Annals of the Turf," that if any gentleman in this country has the pedigree of Hob or Nob, he will please communicate it for insertion in the American Farmer.

48. Yorick, a noted chestnut horse, full 15 hands 2 inches high; got by Morton's Traveller, his dam the imported mare Blazella, out of the imported Jenny Cameron. Blazella was by Blaze, in England.
April, 1767. John Craiggs.

49. Sterling, a famous dapple grey, rising six years old, was got by the Billsize Arabian (which Mr. J Simpson offered 1500 guineas for,) out of Mr. Simpson's Snake mare. She was got by Bows's Snake, and he by the Lister Turk, out of the Duke of Cumberland's Cato's dam: her dam by Mr. Hodgson's horse; her grandam by Nephewson, out of Mr. Shirley's famous old mare: she was bred by Mr. Croft's, at Raby, in Yorkshire, and sold to the Duke of Cleaveland—given by Mr. Simpson to

William Evans.
Surrey county, Va. Feb. 1768.

50. Nonpareil, a fine dark bay, full 15 hands 1 inch high; is as full blooded as any horse in America: he beat Mr. Galloway's famous horse Selim in 1769.
April, 1773. Thomas Lilly

N. B. (Nonpareil is a son of old Fearnought.)

51. Young Bajazet, a beautiful mahogany bay, upwards of 15 hands high; was got by Bajazet, out of a Janus mare, bred by Berrington Moore, Esq. of North Carolina. Joseph Harwoods.
King & Queen, Va. March, 1774

52. Monarch, about 15 hands high, got by the noted horse, Mark Anthony; and his pedigree on the dam's side unexceptionable.

George B. Poindexter.
New Kent, Va. March, 1775.

53. Rockingham, a fine bay colt, four years old this spring, 15 hands 3 inches high; was got by old Partner, (son of Morton's Traveller) and came out of Blossom, a fine mare, imported by Col. Thomas Nelson, and got in England, by old Sloe, a famous king's plate horse; her dam, the property of Lord Rockingham, won the 100 guineas at Hambleton, in Yorkshire; she was got by Regulus, (the sire of Fearnought). John Willis.
March, 1775. (*To be continued.*)

MISCELLANEOUS.

ANIMAL POISONS.

J. S. Sainnea, Esq. *Baltimore, May 26th*, 1828.

Sir,—In the 9th vol. No. 35, of the Farmer, you had the kindness to insert a brief communication from me on the subject of animal poison, particularly that of serpents, and in which I have stated some facts respecting suction by the human mouth as a remedy. In No. 10, vol 10, of the Farmer, I have read a letter from Mr. David Jones, of Wellsburg, in Virginia, in which the (*Podalyria tinctoria*,) wild indigo is mentioned, as an Indian specific against the destructive effects of the poison of serpents.

In the long period of my residence, and extensive range over the Ohio and Mississippi valley, the wild indigo was one amongst innumerable herbs, which I have heard recommended, for a similar purpose. Sassafras leaves, white oak leaves; the leaves of the common plantain; turnips or potatoes mashed to a state of pulp, and common paper chewed and applied to the wound may be added. In brief, scarce a leaf of the forest, but what I have actually heard named as a specific for the bite of the rattle snake, (*Crotalus horidus*,) and it is probable that a very great number can be used to effect, and indifferently, as they act as absorbents, and perform, though in a very inferior degree, the same remedy with suction.

I have been induced to request a place in your truly valuable paper, for these additional observations on the subject of serpent poison, from having yesterday, by mere accident, met with a French copy of Le Clerc's History of Medicine, printed at Amsterdam, 1723—and turning it over, met at page 387, the following very remarkable passage, which I have literally translated. Speaking of Synalus, physician to Hannibal, and stating his power over serpents, as recorded by Siluis Italicus, M. Le Clerc proceeds in these terms:

"The same Siluis Italicus, speaks in another place of one Atyr, who knew how to perform what we have stated; and more, he deprived serpents of their poison. The reputation of the Psylli, in this respect, was such, that if persons not of their nation were bitten by a serpent, they employed a Psylli (if one could be found near the place,) to *suck* the *wound*, and *withdraw* the *poison*. This was practised in the case of Cleopatra, who had caused herself to be bitten by an asp, in order that she might not grace the triumph of Augustus; but the remedy was abortive. We may see in Celsus, what he thought respecting the pretended temperament of the Psylli, which he ascribed solely to their hardihood; adding, *that any other person may, without danger suck a wound made by a serpent, provided that such person has no ulcer or excoriation in his mouth. This remark of Celsus is confirmed by the great number of experiments made during this century* (18th,) *on the venom of vipers, which is found innocuous, except taken directly into the blood.*"

At the time of writing my previous communication, I had no knowledge of the facts cited from Le Clerc; but I feel it almost a duty to forward them for publication, as they shew conclusively that our most essential knowledge on animal poison has not been improved for many centuries; and they justify the conclusion, that it is only powerfully absorbent remedies which are of any great efficacy on the subject before us; and, finally, that the most easily applied of all remedies, SUCTION, can be in almost every requisite case, resorted to with complete safety.

WM DARBY.

INDEMNITY FOR SLAVES.

To the Editors of the National Intelligencer,

Gentlemen:—I will thank you to publish, for the information of my constituents, that the Board of Commissioners appointed to distribute the fund paid by the British Government, as indemnity for slaves deported in contravention of the stipulations of the British Treaty, has assumed the discharge of its duties, and already adjudicated the principle that slaves taken by the British forces, during the war, will be paid for, unless proof *establishes* that they were removed before the 17th of February, 1815. This decision induces a conviction that the slaves taken from the Congressional District which I represent, will be paid for. Yours, &c.

C. DORSEY.

Monday, May 19, 1828.

MANUFACTURES IN PHILADELPHIA.

As a proof of the advancement of the cotton manufacture in Philadelphia, I request you to publish the inclosed.

For the following information respecting the hand looms in the city, for weaving cotton goods, we are indebted to a member of the Pennsylvania society for promoting domestic manufactures, who addressed a number of queries to the Society of Weavers, of whom thirteen of the most extensive and respectable have signed the certificate. As all facts connected with this subject, which occupies at present so large a share of public attention, especially in this state and city, are important, we give place to this article with pleasure, as we will also to all articles communicating *facts* calculated to exhibit the real situation and extent of the various branches of domestic industry throughout the state.

"We the undersigned, having to the best of our knowledge inquired diligently, give the following statement in reply to queries sent us:

"There are in Philadelphia and its vicinity, 104 warping mills at work, each of which is sufficient to employ from forty to fifty weavers, making the number of weavers about 4,500. Dyers over 200, spoolers 3,000, bobbin winders 2,000.

WAGES.

Weavers can now average	5 dollars	per week.
Dyers	5	do.
Warpers	5	do.
Spoolers from 50 cents to	1 50	do.
Bobbin winders	1	do. and found.

HOUSES OCCUPIED.

Manufacturing establishments over 50, average rent $178 per year.

Houses occupied by weavers about 1,500, average rent 60 to $80 per year.

Indigo used per week 2,200 lbs.

Flour used as sizing, per week, 30 to 40 barrels.

Quantity of goods produced per day, 81,000 yards, average value 16 cents per yard.

"The above is an estimate for this season—in the winter, when other employment ceases, the number increases considerably, say one-third.

Thomas Hughes
John Waters
John Steel
John Funston
John Maguire
Thomas Ford
Robert Wilson

Rening & Austin
Patrick M'Bridge
Thomas Laird
Abraham Cumming
Hugh Clark
James Brown, Jr.

Philadelphia, 25th June, 1827.

From the foregoing data we have made the following calculations:

4,500 weavers at five dollars per week, amounts per annum, to	$1,170,000
200 dyers at five dollars, do. do.	52,000
3000 spoolers at 75 cents do.	117,000
2000 bobbin winders at $1 do.	104 000
104 warpers at five dollars do. do.	27,000
In wages, ...	$1,470,000
50 establishments, average rent 180	9,000
1500 houses occupied by weavers 70	105,000
	114 000
2200 lbs. of indigo per week, or 114,400 lbs. per annum, at $2, . . .	228,800
35 bbls. flour, used for sizing, per week, or 1820 per annum, at $5 . .	9,100
81,000 yds. goods per day, makes per year of 300 working days, at 16 cents per yd.	3,888 000
Which, at four yds. of cloth, per pound of cotton, would require per annum, raw cotton, lbs.	6,075,000
Or per of bales, weighing 33 1-3 pounds each, ... bales	20,250
Which would make the consumption about 67 bales per day, or 400 bales per week.	
The amount of value of the goods manufactured as above . .	$3,888,000
Cost of raw materials, say 6,075,000 lb. of raw cotton, at 12 cents . .	729,000
	$3,159,000

More received for the cotton than if exported.

It is within our own knowledge that the above named goods consist of stripes, checks, ginghams and tickings, and that large quantities of them are exported, as well to the east as to the west and south—very considerable quantities being sold in the port of Boston. [*Phil. pa.*

THE FARMER.

BALTIMORE, FRIDAY, MAY 30, 1828.

☞ "The Napoleon, from Liverpool," says a New York paper, "has on board three celebrated race horses, sent out by Admiral Coffin, for his eastern friends. The names of the horses are—Barefoot, a chestnut colour, and a celebrated racer; Cerub, a most beautiful bay; and Cleveland, an extraordinary large bay, 16 hands 3 inches high. They are in excellent order. Two of them, we learn, have been successful competitors for the St. Leger stakes, at the Doncaster races. They are to be sent to Boston."

[We believe that the profits arising from the services of these horses, are appropriated to the support of a school founded by the English Admiral Coffin, in his native Massachusetts; and that the most valuable of them was *presented* to him for that purpose by some *real noble*man, a friend of his in England. We have not the honour, for such we should certainly esteem it, to be acquainted with this same Admiral Coffin; but from what we have seen of his munificence, and his extraordinary and most honourable attachment to his birth place, we feel bound, as the friend of agriculture, to lend our feeble voice in praise of a man who reflects honour alike on his native and his adopted country. We should like to know more of the history of a man, *the American*, who has climbed over every barrier and risen to such high rank in a foreign service; but we have heard of so many proofs of his great liberality, and delight in well doing, to the descendants of the friends of his boyhood; that we should naturally infer the other high qualities by which the humblest men in England are often elevated to high rank in power and public esteem; and we never see the name of this benefactor of the plough, that we do not associate with it his many and valuable donations to the Massachusetts Agricultural Society, and wish that our country abounded, a little more than it does in *such Coffins.*

This is not the first time we have allowed ourselves to speak, however inadequately, in praise of this generous *American foreigner*, and please God, it may not be the last.—"In the fullness of the heart, the mouth speaketh"—to applaud our fellow labourers, if we may presume to use the word, not beyond the measure of their *works*, is no flattery; and though even that reward be unsought, and often unacceptable to such men, we have a right so to use their good actions; which, by being thus publickly acknowledged, confer double blessings; first, by the good they are intended to do; and then by the incitement their example produces in others, who have the means, to *go and do likewise.*

ED. AM. FARMER.]

☞Mr. William Prince, proprietor of the Linnæan Botanic Garden, and his sons, Messrs. William Robert Prince, and Alfred Stratton Prince, have each been elected members of the Horticultural Society of Paris, recently established in that capital under the most auspicious circumstances.

(From the London Morning Chronicle, April 23.)

Mr. JACOB'S Second Report on the Agriculture and Corn of some of the Continental states of Europe, collected in a journey through these states in the Autumn of 1827, was distributed yesterday.

This Report forms a very valuable addition to the knowledge we possess respecting some of the most interesting countries of the Continent, in an agricultural point of view. Much of the information contained in Mr. Jacob's Report, and in the Appendix, could only have been obtained by an individual travelling as an accredited agent of the British Government. From the data furnished in great abundance by Mr. Jacob, there can be little doubt that the expenses of cultivation in the countries through which he passed, are greater than in England.

The quantity of wheat which could be furnished by all the countries of Europe together, except at an enormous cost, would hardly be felt in the consumption of England.

Prussia is the greatest exporting country. In the nine years from 1819, to 1827, both inclusive, the whole export amounted to 1,971,577 quarters, and this amount comprehends the whole of that which descends by the several rivers from Poland. Mr. Jacob gives the following as the average annual exportation from the countries on the Baltic:—

Prussia	219 064	Quarters.
Mecklenburg	66,456	
Denmark	104 768	
Hamburgh	43 419	
Bremen	1,850	
	435,557	Quarters.

The exports of this small annual quantity, added to the rapidly increasing internal consumption, have reduced the stock of wheat through the north of Europe to a very low state

The most interesting part of Mr. Jacob's Report to us, is the light which it throws on the situation of the lower orders of the different countries visited by him. The population every where to be increasing with more or less rapidity. In Prussia, the increase from 1817 to 1827, amounts to 1,849,561: at which rate, the inhabitants would double themselves in little more than thirty-six years. The population of 1826 was 12,243,603. On examining the statement in the Appendix, we find that the increase has been chiefly in the Polish and Prussian provinces. Thus, for instance, while the five provinces of Cologne, Dusseldorf, Coblentz, Treves, and Aix la Chapelle have increased, in ten years, from 1,889,360 to 2,112,616, that is, 223,256, the five provinces of Konigsburg, Gumbingen, Dantzig, Marienwerder, and Posen, have in the same time, increased from 2,057,304, to 2,640,428, that is, 583,124—more than double the rate of the former.—Hanover has increased 14 per cent. since the peace, The Netherlands have increased, since 1815, from 5,425,502, to 6,013,478. In Denmark the rate of increase would double the inhabitants in thirty-two years.

We perceive every where traces of an earnest disposition on the part of governments and individuals, to promote the general welfare, and to mitigate as far as possible, the evils incident to humanity. We see no Irish aristocracy scourging their poor peasants, stimulating them to increase their numbers one day, and the next speculating on the cheapest means of destroying them by millions; no Government of Oligarchs, looking tamely on while projects are in agitation for driving the people by hundreds of thousands to the highways to perish of want. Ireland is the only country in which it is barefacedly avowed that the lords of the soil are exempted from all obligations to the body of the people.

We could easily shew (but our limits will not allow us at present,) that there is no country in Europe, in which the means of comfortable subsistence have increased at so rapid a rate, compared with the increase in the numbers of the people, as England—[God help them!] According to the comparative tables drawn up by Baron Von Malchus, late Finance Minister of Wirtemburg, England possesses one fourth part of all the sheep of Europe. Gregory King made our sheep and lambs, in the beginning of last century, twelve millions. We have now more than forty millions. The increase of our black cattle has been nearly in the same proportion. The wheat which he calculates at fourteen millions of bushels, Mr. Jacob calculates at about fourteen millions of quarters; that is, there are eight times as much wheat consumed in England, as was consumed little more than a century ago. We owe much, no doubt, to our situation, much to our climate, which is by far the best of Europe, both in point of salubrity and for the production of food—but we must owe also much to our local regulations, whatever defects there may occasionally be in their administration.

[This is the same Mr. Jacobs at whose instance, Capt. Basil Hall of the British Navy, submitted the agricultural queries in No. 42, vol. 9, of the American Farmer—many of which were so well answered in Nos 9 and 10 of the present volume.

We should be truly gratified if we could prevail upon some gentleman in one of the N. E. States, Judge Buel of Albany, a correspondent in Virginia, and another in South Carolina, to take up these queries, and answer in the same spirit that Doctor Darlington has done, to such of them as depend on locality.]

An intelligent correspondent has suggested to the Editor of the Aurora and Pennsylvania Gazette as there is now a *prospect* of war in Europe, it would be interesting to his readers, to have brought into one view, the population and strength of the several nations likely to be involved in it. The following is the result of what he has been enabled to collect from the most authentic sources within his reach.

The Russian Empire in Europe, is said to equal in extent all the rest of Europe; it does not, however, appear to be very accurately known or defined. It is composed of upwards of fifty different nations; and these occupy a territory of about two millions of square miles, and compose a population of probably, 45,000,000. In Asia, Russia is supposed to have a territory of 8,000,000 of square miles and a population of ten or fifteen millions; total population, probably 60,000,000. She has an army of about 600,000 men, about 200,000 of which she can take into the field, and a navy of about 400 sail.

The Ottoman Empire in Europe, consists of about 700,000 square miles, with 10,000,000 of inhabitants.—In Asia, perhaps 1,000,000 square miles and 15,000,000 of inhabitants, making an aggregate population of 25,000,000. She has a nominal army of 400,000 men, and can take into the field probably 150,000, and a fleet of 150 sail.

Persia, has a territory of 1,500,000 square miles, a population of 24,000,000, an army of 250,000 men, but no navy.

Austria covers an extent of 1,200,000 square miles, has a population of 30,000,000 an army of 700,000, and a navy of 30 sail.

France has in Europe, a territory of about 1,000,000 square miles, a population of 30.000,000, an army of 300,000 men, and a navy of 150 sail.

The British empire, in Europe, is about 500,000 square miles, with a population of 20,000,000, an army of 300,000 men, and a fleet of 1000 sail. Her colonies are greater in value and extent than those of any other nation, and add to the population under her dominion probably 60,000,000.

The above statements are given in round numbers; but are believed, however, not to be far from the truth, and afford a fair comparative estimate of the nations mentioned.

The Liverpool Mercury of the 25th ult. says, the Cotton sales of the week are 19,000 bales: prices are advanced 1-8d per lb. In sea Island Cottons the advance is ½d per lb. The import is 9000 bales.

Liverpool Markets, April 24.—Cotton, Georgia, 5½ to 7; New-Orleans 5¾ to 8, rising; Sea Island, 10 to 19; Rice 16 to 18s 6d; Ashes, U. S. Pots, 31 to 31s 6d; Montreal 29s 6d to 30; U. S. Pearls 31 to 32s; Montreal 30 to 30s 6d; Tar 12 to 13; Turpentine 11s 6d to 13s; Tobacco 2d to 5d.

IMPROVED REFRIGERATOR,

Or portable Ice House, made only by Daniel Richardson, No. 55, Holliday street, near Bath street bridge.

Good Housewives only can calculate the many useful and economical purposes to which this Invention may be applied. It may be fully relied on for keeping Butter, Milk, Meat, Eggs, Fruits, Vegetables, Wines and Liquors of every kind, or any other article of Household Consumption, perfectly cool, fresh, pure, sweet, clean and free from taint as long as desirable, and it is attended with another advantage—complete security against every species of vermin. And in Winter it will keep any article from freezing that may be deposited in it.

Also, his new Invented Butter Box, constructed on the same principles of the Refrigerator. In these butter boxes, any quantity of butter may be transported to market from any distance, by land or water in the best condition, perfectly hard and without injury to the form of the prints, in the hottest season. Captains of steamboats and vessels going to sea, will find those articles the most essential thing on board their vessels that *History* ever gave an account of, as coarse alum salt can be used in them to keep them cold instead of Ice.

Certificate,—*City Hotel, Baltimore, August 4th,* 1827. I have had in use for two years, a Refrigerator made by Mr. Daniel Richardson, which is the most useful article for the preservation of meats, milk and butter during the hot season, that I have ever seen; it has fully answered my expectations, and I am so much pleased with it, that I have ordered one on a very large scale. I would recommend it to all who are desirous of such a convenience. DAVID BARNUM.

Baltimore, August 1st, 1827.—I purchased of Mr. Daniel Richardson in May last, one of his Improved Refrigerators, and find it so useful, that I could not want one for double the cost, having had a trial, I do not see how we could dispense with it.

GEO. BELTZHOOVER,
Indian Queen Hotel and Baltimore House.

IMPLEMENTS OF HUSBANDRY.

The subscriber has now on hand a quantity of Mr. Little's celebrated Grain Cradles and Scythe Rifles, which will be warranted superior articles of the kind. Also on hand Cultivators for working corn and tobacco. A full assortment of Davis' Patent Ploughs of cast and wrought shares, with and without coulters, and he believes suitable to all kinds of soil. Likewise Wheat Fans, which can be returned if not found to be superior. Cast steel Axes, Picks, Mattocks, and Hay Knives; Oil Stones of a good quality. Also patent Cylindrical Straw Cutters, Brown's Patent Vertical Wool Spinners, Patent Washing Machines, Patent Corn Shellers, and Swingle tree Gearings, &c. &c. Implements repaired on reasonable terms.

All the above named articles are offered on reasonable terms for cash or short acceptances in this city.—Communications by mail, (post paid) will receive prompt attention.

JONATHAN S. EASTMAN,
No. 36, Pratt-st. Baltimore, 30th May, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.25 *a* 4.00—red, 3.50 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .87 *a* .92.—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85--Corn, .31 *a* .33—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .50 *a* .55—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, .21½ *a* 22—bbls. 22½ *a* 23—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—Herrings, No. 1, bbl. 2.50 *a* 2.75; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5 25 *a* 5.50; No. 2, 2.25; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

CONTENTS OF THIS NUMBER.

New Tariff Law, An Act in alteration of the several acts imposing Duties on Imports—Comparative View of the Tariff Laws up to 1824; of 1824, and 1828; with Notes—Cotton Bagging, recommended to be manufactured in the Southern States—Curious instance of the germinating properties of Red Clover—The Angora, or Cashmere Goat—Late destructive Frosts—Kitchen Garden for June—Essay on the Inland Navigation of the United States, from a late London Journal—The Soldier's Child, an affecting Tale—Valuable Invention—Pedigrees of thorough-bred Imported Horses, *continued*—On Animal Poisons—Indemnity for Slaves—Manufacture of Cotton Goods in Philadelphia—Editorial, Admiral Coffin; Mr. Jacob's second Report on the Agriculture, &c. of some of the Continental States—Prices.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

AN ADDRESS,

Delivered at the first Anniversary meeting of the United Agricultural Society of South Carolina, in the hall of the House of Representatives, at Columbia, on Thursday, 6th Dec., 1827—By Whitemarsh B. Seabrook, *President.*

We are assembled, fellow citizens, on the occasion of doing homage to an art, the most useful to man, but yet the most neglected by the world. How important is the duty! How deeply interesting are the circumstances under which it is about to be performed! In placing, in your names, gentlemen of the agricultural society, on the altar of Ceres, the first united offering of the yeomanry of South Carolina, would, that the elevation of my sentiments could correspond with the dignity and moral loftiness of my situation. I would proclaim to you in language befitting the ascendant character of the scene, that *untramelled* agriculture is the Archimedean lever which is destined to raise this nation to the summit of political prosperity and power: that it is a pursuit which has never been contrariant with private happiness, or public felicity and glory: that it is, in fine, a business, which, of all others, best conduces to the legitimate purposes of man's creation. Although the disparity between the sublimity of the theme, and the humble pretensions of the one who now addresses you, is immeasurably broad, yet he is powerfully incited in the discharge of his trust, by the brilliant and imposing assemblage of this evening. Before him he beholds the legislative body of the state—the guardian of the people's rights, and their only faithful political friend. In seizing the present opportunity of awakening their attention to what he conceives to be the true policy of South Carolina, at the present eventful crisis, he appeals for a justification of his motive to the innate greatness of his cause.

The agriculture of this state has long laboured under difficulties, of which many are insurmountable, to individual enterprise. Until the close of our revolutionary struggle, the planter instinctively obeyed the dictates of an untutored mind in reference to the duties of his calling. His field was sowed, attended and harvested, as if there were but one system, and that the offspring of intuition; until in 1784, the necessity of union among the cultivators of the soil, with a view to the furtherance of their profession, led to the establishment of the Agricultural Society of South Carolina. Other institutions, with a similarly laudable purpose, were afterward founded. In despite of the zeal and intelligence of the mother association and its auxiliaries, the march of agricultural improvement was still, slow, feeble and inauspicious. A new era, however, was not far distant. It has arrived, and with it, the solemn, and to the planter, inspiriting assurance, that on the success of the cause of the yeoman, rests the prosperity, and, perhaps, perpetuity of our domestic institutions. In 1823, the St. John's Agricultural Society was established. The number of societies, at present, is *thirteen.*[*] That these societies do contribute greatly to ameliorate the physical, nay, moral condition of the sections of the state in which they are located, is practically true. But, that their usefulness would be considerably augmented—that the benefits their experience and deliberations were so well calculated to bestow, would be rendered infinitely more efficacious by a general association, to be composed of delegates from the local societies, has long been the settled conviction of many of our most distinguished planters. In all enterprises, involving the aid of numbers, unity of design and of action is essential to success. This is particularly true of husbandry. Agricultors are, in general, isolated individuals. Engaged as they are compelled to be in their active bodily occupations, their minds are seldom employed in scientific inquiries. Generation after generation, the same methods of culture are pursued; theoretical suggestions are viewed with suspicion, and experimental tests are performed unwillingly and improperly.

The utility of parish associations is limited from the force of circumstances; or, at any rate, their influence can never attain that commanding rank which usually flows from concentration of effort. If to the former we are indebted for the glimmering light which partially illumines the still mazy path of the husbandman, is it not at least problematical, that a conjunction of their experience and moral power would tend more certainly to elevate the profession of the farmer; to rouse into action his latent feelings; to ensure a more profitable direction to his industry and skill, and above all, to effectuate those schemes of policy to which the exertions of individuals and of independent societies are wholly incompetent? These views are strengthened by a recurrence to the history of the British Board of Agriculture. From this board has emanated eighty volumes[*] of the most useful agricultural knowledge, and which, probably, would not yet have existed, had not the patriotic philanthropy of that distinguished nobleman, Sir John Sinclair, conceived the idea which his zeal and talents subsequently perfected. "Those volumes," says Gregory, "cannot fail of producing national benefits; greater, perhaps, than have been derived from any other political institution of modern times." His prediction has, indeed, been verified; for, maugre the impolicy and injustice of successive administrations, in rendering ascendant the manufacturing interest, the British Board of Agriculture, by its literary labours exclusively, has been directly instrumental in doubling the profits of the landed capital of England. Every acre now in tilth in that country adds annually a hundred-fold to the usual increase under the old system. The consideration to which I have briefly adverted, with other views peculiarly applicable to South Carolina, led to the establishment, fellow citizens, of the society over which I have the honour to preside. It is emphatically a state institution, for the promotion of the public weal is its legitimate, its only design. It implicitly confides in the patronage of the constituted authorities. Without it, although much public benefit may be effected, yet, its contemplated schemes cannot progress to consummation. The grand outline of their plan of association is "to insure an accordance in their sentiments and measures, to found an agricultural school and a professorship of agriculture; to collect and disseminate information, and the more effectually to promote the permanent interests of their vocation." Such is the language of their constitution, and to its subject matter I would respectfully invite your serious attention. Allow me, however, to offer to your consideration such prefatory remarks as the topic and the occasion so naturally suggest.

There are three prominent causes which have operated injuriously on the agriculture of this state. First, the insalubrity of the climate; secondly, the cultivation of cotton and rice to the utter neglect of provision crops; and, thirdly, the great disparity between the landed capital of the planter and his other property. In relation to the first cause, it may here be pertinently remarked with a view to show the immeasurable influence of husbandry on the happiness of man, and the prosperity of nations, that it can avert, as it were, at will, the fatal effects of a pestilential atmosphere, or call into action, every satellite of the tyrant death. The Campagna of Rome was the *regio felix*[*] of antiquity. On it more than twenty cities raised their proud and aspiring heads. There, the husbandman reaped his unceasingly abundant harvests: he wandered always amid the luxuriance of vegetation. What is the present condition of the finest portions of that fair land? A prey to the invisible enemy, malaria. Its fragrant breezes are poison: the dews of its summer evening descend but to destroy; and this mighty revolution, so deadly to human life, has been effected solely by the compulsory withdrawal of the industry of the farmer. The blessings which his space once afforded, the resources of all Italy could scarcely now command. Where is the fertility of Spain, Portugal and Sicily, once the granary of imperial Rome? It still exists. Nature in the exercise of her bounty yet acts to those portions of the globe with her usual beneficence; but, as if to requite her kindness with ingratitude, the extent of their system of agriculture would seem to be confined to the narrow limits of immediate and positive wants. Has the climate of those countries deteriorated? Yes; lamentably so! The admonitory page of history points to the era of the decline of their husbandry as the epoch to which the Spaniards, the Sicilian, and the subject of Portugal refer, for the origin of many of the most malignant diseases which now afflict their respective nations. But why need I go abroad, when this state unfortunately furnishes too numerous instances of the verity of my assertion. That a period has existed, and that not far distant, when our citizens could enjoy as much health at their country seats as is usually allotted to man in a southern clime, is a matter of historical notoriety. At present, even those who are inured to hard labour—who from their infancy have basked and toiled under a vertical sun, seldom witness the approach of winter, but as the termination of their sufferings from the baneful influence of miasmata. Hence during the summer months, a few of the lower districts, as it regards the white inhabitants, may be said to be depopulated. To their negroes, or in most instances, incompetent overseers, the business of the planter is entrusted. From the day of his departure from home, is to be dated the derangement of his plans—the numerous losses incident to the want of a methodical director, in the police of the plantation, and in matters of general management—the comparative unhealthiness of his slaves from relaxation of discipline; and, lastly, their insubordination and its effects on their moral temperament and the state of our society. These considerations, abstractly viewed, merit a serious and dispassionate investigation; but when the elements which compose our domestic institutions are duly appreciated, they at once assume a character of deep and imposing interest. The progressive deterioration of the climate is avowedly referrible to extensive clearings of land, and to the abandonment of inland rice-fields. If the patriot Carolinian wishes ocular proof of the mighty incubus which paralyzes the inherently agricultural strength of his state, he need not go beyond the precincts of the metropolis. Within a little mile of the city of Charleston, the number of fallow farms; or, if under tillage, the scanty pittance of their increase, and the sallow and feverish looks of their cultivators, all denote the existence of a physical influence adverse to successful husbandry and health. Would to God the representation here given were but the picture of an insulated section of South-Carolina. I would, at once, legislators, demand of your justice and patriotism the prompt application of the only efficient remedy. Such, however, is the extensiveness of the evil, that if, at this time, I but invoke your best reflections on the magnitude of the subject, I conceive that I shall have discharged my duty. What is the actual condition of a considerable proportion of many of the lower districts—once well popolated, and where the most profitable lands were considered to be located? The dilapidated embankments, that form the lines of demarcation between neighbours' property; the half-choked channels through which their fields were drained of exuberant moisture; and the substantial but deserted mansions which ever and anon meet the eye, are the only visible testimonials that industry, health, and wealth, once blessed that now dreary region. In beholding those melancholy monuments of departed happiness and prosperity, well may the traveller exclaim, in the emphatic language of Ossian, "I have seen the walls of Balclutha, but they were desolate; the thistle shook there its lonely head; the moss whistled to the wind; the fox looked out of the window; the rank grass waved round his head: desolate is the dwelling of Moina; silence is in the house of her fathers." A restoration to the enlivening scenes of olden times, or the existence of the more gratifying spectacle which density of population, and the culture of our waste lands would afford, I am satisfied, will never ensue, until a revolution in an important feature of our husbandry is effected and supported by a change in the mode of advancing the internal improvement of the state. Every planter should act, as though the amelioration of the climate were his own peculiar concern; and, to the practical enforcement of this principle, the exertions of our agricultural societies should unceasingly tend. If constant and appropriate appeals to the pride, the interest, and the public spirit of our yenmanry, be insufficient to direct their labour to this indispensable branch of southern husbandry, it will, perhaps, become necessary, eventually, to resort to some more powerful impetus to industry. To the planter who renders arable an acre of land, from which noxious exhalations were wont to be emitted, I would present with a badge of honour; but, to the improvident husbandman, who cautiously avoids the tillage of every fen which may invite the exercise of his powers, the reprehension of his fellow-labourers should be his legitimate recompense. Whatever success, however, may attend the best digested schemes of our agricultural societies on this subject, it is still manifest, that the great work of physical reformation will only have commenced. To the state, we not only look for aid and advice, but for the practical direction of, perhaps, as patriotic and benevolent an enterprise, as it is within the grasp of human ingenuity to devise. In a country like this, where the population is so sparse, and where the wealth of the most opulent citizens is, in most instances, but one remove from the common capital of the subjects of older countries—purposes of mere public utility should seldom be attempted to be attained by private speculation. The chief end of civil society, is, to accomplish, by the aggregate power of its members, those measures, involving the interests of the community, to which the means and the general ability of individuals are incompetent. Hence, the first duty of a legislator, where his services, in this respect, can be efficiently directed, is vigilantly to prosecute every feasible project tending to contract the sphere in which endemial diseases exercise a fatal sway.[*] Without health, there can be, comparatively, no industry, no impetus to exertion. Unsupported by this first of blessings, the journey of life is but a cheerless pilgrimage. Although the agriculture of South Carolina has been materially benefited by the internal improvements which have been effected, and although, I believe, the intrinsic value of the system has not yet been realized; still, I apprehend, it is now the incumbent duty of the competent authorities to inquire, whether their primary design shall be continued; or, in the event of their conviction, based on the promotion of the general weal, whether a new direction shall be given to the public funds? In this state, the surface of land, covered by swamps, is computed to be 2000 square miles, or 1,280,000 acres. The prominent consequences, that would follow from the arable condition of those lands, are, first, the amelioration of the climate; secondly, an increase of population, resulting from an artificial increase of territory, and that too, of the most productive character; and, thirdly, the peopling of that extensive region, occupying the middle section of the state, and bordering, in part, on the swamps. That region is proverbially barren, in regard to the known productions of our soil, but from recent experiments, it is supposed to be the very home of the the vine.[*] But whatever may be its present agricultural disadvantages, it must eventually become valuable, from its location to the lands proposed to be reclaimed, and from its acknowledged salutariness. Here the foreigner may labour in safety, for the pestilential vapours of a southern clime, do not corrupt the air that he would inhale. Without trespassing on your time in the developement of further views in relation to this copious topic, allow me, gentlemen of the society, to recommend to your early deliberations, the expediency of so far asking the patronage of the legislature, as to solicit that body, to direct the superintendent of public works, to ascertain the number of acres of swamp land that can be profitably reclaimed—their present value—where located—the probable expense of embanking and draining them—and their value when they shall be placed in the best state for cultivation.

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[*] South Carolina; Pendleton; Edgefield; Barnwell; St. John's, Colleton; St. Helena; Beaufort; Beaufort District;[*] St. Andrew's; St. Paul's; Winyaw.

[*] Not represented in the General Society.

[*] They contain "the geographical state of each county, the state of property, farm buildings, mode of occupation, implements, fences, arable land, grass, orchards, plantations, draining and other improvements, live stock, rural economy, means of improvement, &c."

[*] So called from its beauty and fertility.

The next enumerated cause of the slow progress of our agriculture, was the culture of rice and cotton, to the neglect of the common necessaries of life. That capital will always seek the most profitable channels, is a well known maxim of political truth. Guided by the all-powerful dictates of self-interest, man is, as it were, instinctively led to give such a direction to his resources, as will be most likely to advance his temporal welfare. A belief that cotton and rice are the most profitable crops, has, for many years, induced our planters to bend their undivided efforts to the raising of those two staple commodities. The result is, excess of production in reference to cotton. Rice yet meets with a ready demand, from the present circumscribed extent of the lands prepared for its culture; and even were every acre in the state fitted for the production of this grain now in tilth, it is believed, from the acknowledged superiority of Carolina rice, that it would not impair the value of the article. This consideration, added to the facts, that it is a much more certain crop than cotton, liable to fewer diseases, less likely to be seriously affected by physical causes, and but seldom subject to ruinous fluctuations in price, are but so many admonitions to the rice planter to beware of his occasional aberration from the true course of policy which it is his interest, unchangeably, to follow. The cotton plant is cultivated to a very great extent, not only in the United States and South America, but in the Mogul empire; in the kingdoms of Siam and Pegu; in Sumatra, Persia, Arabia, Asia Minor, Natolia, Smyrna, and Aleppo; also, in Senegal, Sierra Leone, and other parts of Africa; in Candia, Cyprus, and Malta. Cotton is also grown in some parts of the Russian empire; in Astracan, Orenberg, and even at Kislar.[*] In Egypt alone there are 2000 square leagues of tillable land, most of which is adapted to that plant.[†]

Hence, it is not probable, that the demand for cotton, will ever exceed the supply. Under this persuasion, it becomes interesting subjects of inquiry, whether over-cropping, the great bane to good husbandry, shall still mark the career of the southern agriculturist? Whether it is not feasible for him to realize his present profits, but accompanied with the desirable correlative of food sufficiently abundant, at least, for domestic purposes? That our practice, hitherto, has not produced those benefits which a different course of husbandry would be likely to ensue, is demonstrable in the want of other evidence, solely from the fact, that in 1801, the value of the rice, indigo and tobacco, exported from Charleston, was not much less than the total average value of domestic and foreign productions exported from the whole state, from 1824 to 1826, inclusive,[‡] where an excess of about 50,000,000 lbs. of cotton was raised.[‖] Notwithstanding the gradual declension in price, which the history of this article exhibits, the boundary of its culture steadily enlarges. The same remark is inapplicable to rice, which, perhaps, from the presumption that the valuable lands within the compass of private funds to reclaim, have long since begun to reward the industry of the planter; or, perhaps, from the admission, that the preparatory labour and capital, necessary to the establishment of a rice plantation, are infinitely greater than what are essential to the grower of cotton, has increased but in a very inconsiderable degree within the last thirty years.[§]

It is false in theory, and false in practice, that the amount of production depends on the single consideration of the quantity of land subjected to culture. If the growing crop exceed the labour allotted to it, it will not only be unattended in a manner necessary to a lucrative increase, but every other interest of the planter will proportionally suffer. Experience leads me to infer, that three acres of cotton land, well manured, and judiciously managed, will, in almost every instance, give a larger return than five acres improperly cultivated, or in want of artificial excitement. To the non use of the various labour-saving machines which the ingenuity of the mechanical world is perpetually introducing to our notice, may be sought one reason, why provision crops and cotton, have not proceeded *pari passu* in the career of success. The planters' maxim, has, hitherto, seemingly been, that the latter was the grand succedaneum, emblematical of the fabled lamp of Aladdin. He now appears to need no other provocative to industry, than the product of his cotton field; for, with it, he can call into existence the treasures of a creative fancy. Under this fatal delusion, he is now, perhaps, the most dependent agriculturist in the union. For the last five years, we have imported

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[*] As miasma is the result of the mutual action of water and heat, upon decaying vegetable matter, the extreme sickliness of the low country of South Carolina, may be inferred from the fact, that "an acre of ground, disperses into the air, upwards of 1600 gallons of water in 12 hours of a summer's day, even when there had been no rain for a considerable length of time. After a rain, the quantity was found to increase to 1900 gallons, in the same length of time."—See Mill's Statistics of South Carolina, for a very interesting article on the feasibility and policy of draining and embanking the swamp lands of this state.

[*] Mr. Herbemont, of Columbia, for the two past years, has realized 300 gallons per acre of wine, sufficiently good to command readily two dollars per gallon. When it is remembered, that a labourer can attend with facility four acres; and, that in South Carolina there are at least 5,000,000 of acres, valued at from 10 cents to $5 per acre, admirably adapted to the culture of the vine—the prospect of personal aggrandizement to our citizens, and of political importance to the state, from an extended system of this new branch of industry, is as certain, as the means to effectuate the end are unquestionably feasible. May the period soon arrive, when our citizens, instead of annually expending a part of the profits of their labour at the northward, for pleasure or health, shall be satisfied, that the sand-hills of their native state, not only afford every blessing incident to a balmy and invigorating atmosphere; but, that they have been proved to be susceptible of yielding a crop, as lucrative in its product, as it is useful and agreeable in its cultivation!

[*] Statistics of Liverpool.

[†] The spirit in favour of extending the cultivation of cotton in Egypt, has been, in a great measure impeded, by the impolitic conduct of the Pacha. Independently of the adaptation of the soil for cotton, negroes can be purchased there for $80 a head, and hired for 6¼ cents a day.

[‡] See note A, in the Appendix.

[‖] See note B, in the Appendix.

[§] From the year 1790 to 1792, inclusive, the average export of rice, was 95,819 barrels. From 1824 to 1826, inclusive, it was 98,771 tierces.

530,000 bushels corn;
100,000 do. oats;
20,000 bundles of hay; averaging

about 375 lbs. each. At their current value, the tribute money of South Carolina, has been, in five years, on those three articles, only, $406,000; the interest of which is sufficient to reclaim, permanently, upwards of 2800 acres of the immense area of our swamp lands.*

Until about 1805, the Upper districts were the venders of grain. Their interest seemed to have invited them to an interchange of the fruits of their labour with the metropolis, and to produce those articles of prime necessity, which the planters of the sea-board had ceased to raise, as though they constituted an excrescence on their system of husbandry. At this period, our citizens of the midlands, who, until they had been blessed with well-stored granaries, and even a respectable portion of our yeomanry of the mountains, could no longer resist the fashionable impulse of the day. They, too, began to buy their bread from the store houses of a sister state. However humiliating to our pride, our patriotism and judgment, which the fact of our dependence on foreign labour, for the staff of life, creates, the reflection assumes a sombre character when it is associated with the assurance, that our very beasts live not on the fruits of their masters' soil. Yes, fellow-citizens! even at the capitol—at this seat of legislation, and before the assembled representatives of the people, the revolting spectacle has often been exhibited, of our horses and oxen feeding on the mowings of Connecticut meadows. Are we ignorant of the botanical productions of South Carolina? Are her indigenous grasses devoid of nutriment; or, are the atmospherical attributes of a southern clime, uncongenial with the abundance of their increase?† The agriculturist who habitually sells the necessaries of life, is morally powerful in himself, and is the dispenser of power to others: but if, no matter from what cause, he is annually debited with those commodities which it is the peculiar province of his profession to furnish, though he may boast of the independent life of the husbandman, yet, in his person, we behold the very type of a sluggard and a slave! He is, in effect, no better than the Roman, who daily begged his bread from the authorized distributors of corn.

Gentlemen of the Society,—the imputation under which our agriculturists have long laboured, in relation to this subject, I trust, is destined to exist no longer. Our future course is a plain one. Plant less cotton, and more provisions; use manure more freely; give constant employment to the plough, and the other needful implements of husbandry; in fine, become more in practice, farmers. By these means, I venture, unhesitatingly, to predict, that you will realize greater returns from your cotton fields; and, what ought to be of more importance, your granaries, hereafter, will be located at home. Hence, too, less land will be cultivated by individual proprietors, and our children be thereby enabled to hope, that a portion of the very soil which nurtured them into manhood, will become their patrimony. Then, perhaps, each of us may be able to apply to himself the pleasing reflections of Euthymenes, on the delights of a country life. "When I walk in my fields," said he, "all things smile, and seem embellished with new ornaments in nine years. These harvests, trees, and plants, exist only for me, or rather, for the necessitous, whose wants I relieve. Sometimes I create to myself illusions, to heighten my enjoyments, and the earth then seems to accompany her benefactions with a species of delicacy, announcing her fruits by flowers; as among men, benefits ought to be accompanied by the Graces."

I now come to the brief consideration of the only remaining prominent drawback to the agricultural prosperity of South Carolina, to wit, the great disproportion between the landed capital of the planter and his other property. Capital, in whatever form, that yields not an interest, is not only a source of unproductiveness to the owner, but the instrument of inflicting a positive ill on society. It operates precisely in the same way, as though so much circulating medium had actually been withdrawn from trade. Many planters own from 500 to 2000 acres of valuable land, when oftentimes the force employed on their estates does not exceed thirty labourers. By this species of improvident monopoly, they substantially abridge the pecuniary power of smaller capitalists, by preventing the agricultural investment of funds; thereby detracting from their temporal advancement, and the well-being of our society.

The strong analogy between animals and vegetables, was the origin of the fallow system. As the former periodically requires rest, with a view to the resuscitation of their powers, exhausted in labour or exercise, it was inferred, that the soil also, at times needed reviviscency. The force of this remark, it is supposed, is greatly augmented when it is known that unless cotton land occasionally lies fallow, it will be comparatively unproductive, or rather, the fruits which the plants disclose, will hold by so slender a tenure, that the slightest irregularity of the seasons, will incorporate them with the earth. Although experience has, in part, confirmed this opinion, yet I incline to the belief, founded on recent experiments, that if manure be annually changed from stimulating to mechanical, and *vice versa*, the same field may be planted profitably in cotton *ad infinitum*.* By the unvaried application of one kind of manure, the effect on soil with regard to cotton appears to be the same, as the continued use of a particular tonic to the animal system. Its restorative property is limited by time, beyond which its administration is of no sensible utility; hence the necessity of a change of condiment. Public credence has yielded to the impression, that if the scheme of annually raising a crop of cotton on the same lands be rigidly adhered to, the soil will become too loose and friable, and thus too retentive of moisture. If this be true, the evil will, in a measure, be alleviated, by a more effectual system of draining, and by the application of those manures which tend to create a firmer earth, and to neutralize the acidity consequent on an excess of moisture. But admitting the validity of the objection, I make the broad assertion, that it is radically wrong to pasture cotton lands longer than one year. Persuaded of this truth, I am decidedly of opinion, that nine acres to each labourer, is the utmost quantity of land which it is the interest of the cultivator of black seed to possess.† Could this principle here adverted to be practically executed, and I am satisfied it can be effected in a very considerable degree, one serious obstacle to our agricultural advancement will be at once removed. If, from circumstances inseparable from the culture of the cotton plant, South Carolina can never rival in the order and economy of her husbandry, those states where other commodities, though of much less value, are raised; it is yet manifest, that by adapting our plantations to the labour-capital employed, allowing, if necessary, one year for fallow, that great private and public good will eventually result. In a country where the farms are extensive, agriculture can never attain its best condition. To the extreme subdivision of the soil, is to be traced the perfection to which the agriculture of Rome arrived at one period. When luxury, and the lust of power, contributed to change this feature of national policy, do we find the progressive deterioration of manners and husbandry. Rome was powerful, rich and prosperous, when every citizen generally owned but seven acres, but when one half of Africa was the property of six Roman families, the halcyon days of that venerated nation existed in memory only. To the great manorial grants, and unequal divisions of soil, which followed the conquest, is, in part, to be ascribed the wretched husbandry of Spain and Portugal. "It is not now uncommon to find six, ten, and fifteen leagues belonging to one master." In this state, it is indeed lamentable to reflect on the vast amount of waste lands, by which I mean lands that are habitually consigned to nature's nurse for two or more years, on the specious plan of prospective improvement; and lands, the ownership of which can be known only by a recurrence to the tax book. To your reflections I submit the estimate of the probable advantages that would have accrued to the state, had those agricultural aberrations ceased with the error which called them into being.

Thus, fellow citizens, have I endeavoured as fully as the limits of an address will permit, to point out the most obvious and important impediments to the efficient improvement of the agriculture of South Carolina. Two of those impediments arise from what I esteem fundamental errors in husbandry, and although the other is, perhaps, in the main, an unalienable inheritance, so far as it affects unpropitiously the physical condition of the state; yet, it is for the people, through their constitutional organs, to determine, whether that inheritance shall be destined to minister to the wants of our posterity, or to be the ever-living memento of our indiscretion and improvidence, and above all, of our unpardonable ingratitude to God. I am fully aware of the difficulties attendant on successfully combatting the prejudices of the planter, and of effecting a revolution in public sentiment on any point, connected with the public weal. The task is, indeed, herculean; and in reference to the view which has just been unfolded, to your zeal, patriotism and unceasing industry, gentlemen of the society, is intrusted the prosecution, and I trust speedy accomplishment of that most laudable and emphatically philanthropic enterprise. As a preliminary step to the attainment of your end, it has been judged expedient to solicit the Legislature for the establishment of a Professorship of Agriculture in the South Carolina College, and to demonstrate to that body, that at a period not very remote, it will become necessary, so far to modify the act concerning Free Schools, as to authorize the instruction to their pupils of the most common and useful principles of husbandry, theoretically, and as far as attainable, practically.

The human mind is susceptible of indefinite expansion. Admirably subservient to the great ends of its creation; its operations display the nobleness of its origin, and the profundity of its comprehension. Of a nature, inherently elastic, it can readily accommodate itself to any sphere of action, to

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*Admitting those lands, if properly prepared for cultivation, capable of yielding *communibus annis*, 38 bushels of corn per acre, the product of 2800 acres, would, in five years, be equal to the quantity which I have said has been imported since 1822.—Author.

†It is within the personal knowledge of the author, that in 1823, a field of reclaimed marsh land, of the extent of 20 acres, which the year previous had been planted in cotton, yielded a crop of crab or crop grass, of the average height of five feet. After the cotton was harvested, the land was simply enclosed, and no care or labour subsequently bestowed.

*See note C. in Appendix. †See note D. Append.

which the interest, or the necessity of man may invite it. At the bidding of education, it can penetrate the bowels of the earth, and elucidate its arcana; or, it can soar to the very confines of that mysterious region, in which a superior intelligence alone reigns. From these considerations, predicated on the wonderful and unceasing display of the power of the intellectual world, is it not a matter of astonishment and regret, that the mind of man should never have been aroused to a full developement of its energies, in relation to the most important object of human pursuit? Were our mental faculties given to us to elucidate the principles of particular professions only? Is agriculture doomed to be governed by accidental circumstances? or, was it intended, when the ground was cursed for Adam's sake, that the husbandman should enchain his reason and his judgment, as irrelevant to his vocation? To what causes are all the improvements which now characterize the system of agriculture to be ascribed? Compare the general practice of husbandry in England now, with what it was in the 14th century; and its present condition in the United States, to the very low state in which it existed, at the establishment of the Pennsylvania society.[*] In the salutary change which has been effected, I point exultingly to mind, as the primary, efficient, operative agent. Until the time of the scientific Tull, agriculture may be said to have been without order, without method, without even a fixed and determinate character. His new system, introduced into England about seventy years ago, has been the means of the English farmers doubling "the quantity of his produce, without any increased expense in the cultivation." It is true, that Cato, Columella, Virgil, and other eminent ancient writers, have enriched their pages with the pleasures, the moral influence, and the transcendent national advantages of agricultural pursuits, yet their labours were but slightly directed to the methodical arrangement and digestion of the principles of their favourite art. In modern days, however, some advance has been made towards the effectuation of this object. To Rozier and Chaptal of France; to Millar, Marshall, Coke, Sinclair, Young, Davy, and others of Great Britain; are we indebted for the partial exposition of a subject, as comprehensive in its character, as it is important in the abundance and value of its materials.

Every pursuit of human life is the more profitable, the more useful, and the more likely to attain its legitimate purpose, by a proper understanding of its elementary principles. "To the due success of agriculture," says Mr. Madison, "theory and practice are both requisite. They always reflect light on each other. If the former, without the test of the latter, is a vain science, the latter, without the enlightened precepts of the former, is generally enslaved to ancient modes, however erroneous; or, at best, but too tardy and partial in adopting salutary changes." To the scientific farmer, his whole life is one eternal round of observation, examination and reflection. Invigorated by knowledge, he investigates, with a view to the application of an effectual corrective, every cause, which, in its effects, may have marred his anticipations. Satisfied of the truth of these remarks, and of the happiness and elevated station which awaited his country from the cultivation of the comparatively illimitable extent of her domains, Washington had determined to give another signal proof of his patriotic devotedness. Amidst the anxiety and burdens of the presidential office, he actually prepared a plan, for the establishment of a National University, for the promotion of husbandry; but, from the intervention of some unforeseen contingency, it was never submitted to the representative branch of the government.[*] It was, perhaps, the existence of this interesting anecdote, which induced an agricultural society in North Carolina, in 1806, to petition Congress, for the institution of a National Board of Agriculture. "The bill for it was prepared, and was twice read, and met the general support; and would have passed into a law, had the session continued three days longer."[†]

From causes, which, it is not my present purpose to notice, agriculture has too long been deemed an art, the successful prosecution of which, needs not even an occasional scintillation from the altar of genius. Whatever may have been the origin of this unfortunate opinion, it is notorious, that the prejudices of education, and the indisposition of man for hard labour, have practically confirmed the idea, engendered, perhaps, by ignorance and pride. "Husbandry, in the general sense of the word," says a learned lexicographer, "comprehends the whole practice of agriculture; in which, we have to consider the nature of the soils we meet with, on and near the surface of the earth. The methods of correcting those which are unfavourable to the production of useful vegetables; the improvement of such as are deteriorated by over-cropping; such implements as are fittest for facilitating the operations of agriculture; the means and powers best adapted for such purposes; the cattle and live stock most profitable to man, whether for labour, or more immediate use, as food; the grass, grain, roots, and pulse, most beneficial to him, and the minor subjects connected with this important science." From this analytical solution of husbandry, it is apparent, that to its improvement, several of the most valuable sciences, such as chemistry, botany, mineralogy and zoology, owe their utility; and, that he who would seek for the mental treasures, disclosed by a *thorough* knowledge of its principles, must possess an intellectual power; which, it is the lot of but few to enjoy or to acquire.

South Carolina, is emphatically, an agricultural state. The prosperity and permanency of her domestic institutions are identified with its success. Her weight in the national councils, rests on its progressive amelioration. To encourage it, is a political duty, and a substantial proof of your patronage. Legislators, introduce it into your college—direct the mind of the rising generation to it, and let every yeoman, have it in his power, to write in letters of gold, on the lintel of his door: *To South Carolina, am I indebted, for the principles of my profession.* Had an effort been made to attain that end, the heart of many a parent would have been saved its agony; the tear of sorrow would less seldom have glistened on the furrowed cheek of age. In this state, as, it is believed, in every other of the union, the learned professions are overstocked; arising from what may not unaptly be termed an hereditary academical pride, which inculcates the maxim, that the temple of fame, should rarely be opened to the fellower of the plough. Under this delusive persuasion, hundreds of youth, are annually placed on the great theatre of life, to realize the mid-day dreams of an unsubstantial philosophy. The fame of the *literati* of antiquity, so obscure their mental vision, that, although in the examination and study of history, their eyes may have rested on the unbending integrity of Fabricius; the patriotic devotedness of a Regulus, a Curius, and a Cincinnatus; and the virtues and piety of that distinguished agriculturist, Numa Pompilius; yet, their attention having been directed exclusively to the "nobler sciences," such examples are viewed, merely as a relief to the general picture, which the rude mind of the husbandman is supposed incapable of improving. To such considerations are referrible moral evils, of an alarmingly increasing character. In our towns and villages are many worthy young men, who, from the want of employment in their vocation, and their unfitness for any other than the business, which they were educated to discharge, have yielded to the baneful influence of inactivity and *ennui*. Such citizens, ultimately, become mere drones in the hive of society. They not only add nothing to the productive means of the country, but by their habits, they corrupt the public morals, and weaken the force of virtuous impressions.

There is one interesting view of this subject, to which I would now advert. I have already stated, that from the sickliness of the climate, the estates of the lower districts, in the summer season, are deprived of the supervision of their owners. In general, the planter entrusts the sole management of his domestic concerns to some needy wanderer, who, without education, without morals, or the incentive to honourable emulation, assumes the mastership of a business, at once complicated in its details, and requiring the unwearied exercise of a sound discretion, to conduct it safely through the ordeal of its own peculiar composition. Oftentimes twenty or thirty incompetent overseers, exercise an unlimited control over a whole district, comprising thousands of labourers. In their hands is truly, for a time, the whole fortune of their employers. Their ignorance cannot advance it:—their indiscretion may for ever blast it; and, peradventure, shake the state to its centre.[*] If these considerations, be insufficient to awaken us, to a sense of the magnitude of our duty; if the present political aspect of our affairs, is not enough to admonish us, of the approach of the ides of March; if the necessity of adapting the education of our citizens, to the stations which they respectively may wish to fill, be not clearly indicated by the ordinary principles of human nature, I am at a loss to conceive the motive, which could tend to elevate to the rank of one of the most honourable and useful professions, the now humble and undignified vocation of the overseer. Exercising, in public esteem, a degrading function; hence, receiving but an inadequate compensation for his services; unaided by the moral power which education imparts, and, but seldom, or never cheered by the avowed confidence of his employer; he moves and acts, as though the prospect of temporal preferment, were but the illusion of the brain.

The necessary effect resulting from the contemplated professorship, provided the lectures on agriculture, be a component part of the students' collegiate course, will be a salutary change in the feelings and opinions of the students themselves, in relation to husbandry. The subject is intrinsically of a nature so fascinating, that it requires to be but superficially understood, to induce even the prejudiced to search diligently for the inestimable learning it discloses. I care not what course of life the pupil may have determined to pursue, a knowledge of the elementary principles of agriculture, will contribute materially to his stock of that species of intellectual wealth, which can always be advantageously disbursed. It would be hazarding but little, to reflect, that there will, annually, leave college, numbers of youth, deeply imbued with a high sense of the rank and dignity of the profession of the husbandman. Their opinions, founded on reflection and study, must, in time, effect a highly beneficial reform in the sentiments of every calling in society.

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[*] Judge Peters, the founder of the Pennsylvania Agricultural Society, richly merits the epithet of the Father of American Husbandry.

[*] On the authority of Judge Peters.

[†] From the unpublished Agricultural Correspondence of G. W. Jeffreys, of North Carolina.—*See American Farmer, No. 21,* vol. ix, page 161.

[*] To the gloomy description here given of our overseers, there are many and honourable exceptions; and I state with pride and pleasure, that as a class, they are gradually improving in morals, education, and general worth.

In penetrating the vista of futurity, with the mental vision of a weak and erring mortal, I behold, in anticipation, the attainment of the very end, which my best reflections lead me to infer will ensue from the system referred to. I allude to the establishment of agricultural schools.

Fellow citizens!—they must sooner or later be identified with your schemes of policy—your best interests require it—your individual prosperity, and the safety of your domestic institutions demand it—philanthropy, and the fundamental principles of our government invite your zealous co-operation in the enterprize. In Europe, where the double doctrine of Machiavel, is the main spring of every political action, and where the press reflects only the will of the monarch, it has long since been adjudged necessary and politic, to instruct the people in the theory of husbandry. Whence this departure from a vital tenet of their government? Why so adventurous a project, when satisfied of the truth, that knowledge is power? A solution of the apparent enigma is to be found in the practical acknowledgment, that agriculture is the basis of a national wealth. The first agricultural school in Europe, was founded at Milan, in 1770. It is not known what has been its fate. Schools are now established in Switzerland, Prussia, Italy, France, and the Austrian states.[*] The most celebrated, is that at Hofwyl, in Switzerland, erected by M. de Fellenberg, to improve "the art of cultivation, and the character of the cultivator." The best evidence of the success of that institution, is, that its pupils are employed at high salaries in various parts of Europe, to superintend and direct the labours of agriculture. With such examples before us, fellow citizens, we cannot much longer hesitate. "It fills me with astonishment," said Columella, the Roman, "that while those who wish to become orators, always have recourse to one as a teacher, whom they may take as a model—and those who learn music, dancing, or any other of the lighter and more frivolous accomplishments, employ, of course, a professed teacher—agriculture, that most important of all arts, has neither masters to teach it, nor pupils, who seek to be taught. Is there then nothing in it, which requires to be studied? Is there nothing to reward research?" "For myself," he continues, "when I take an enlarged view of this noblest of all pursuits, and survey it on all sides, and consider what it embraces, that it would be profitable to know, I fear that I shall see the end of my days, before I shall become a thorough master of all its mysteries." In now-a-days, sowing, reaping, and the general process of cultivation, are viewed as mere mechanical operations, as easily accomplished by the idiocy of the Hindoo, as by the skill and judgment of the experienced farmer; and, in allusion to this state, the youthful planter is led to expect a fortune, without having been taught "a single quality which can preserve or acquire one." To the prevalence of such false and dangerous notions, poverty has been the lot of many, who, if nurtured in a school of agriculture, would have been active and efficient promoters of the public weal. In such an event, they would, at least, have added their contingent to the mass of productive industry.

Gentlemen of the society:—Having thus feebly, though, I trust, not unprofitably, discharged the duty enjoined on me by my situation, permit me to conclude this address, protracted already to a tedious length, with a few reflections, peculiarly pertinent to the occasion, and the interest we have associated to advance. The picture I have attempted to delineate, of the agriculture of South Carolina, however discouraging it may appear in its *contour*, can yet be made acceptable to the most ardent in the cause of the yeoman. It exhibits not a solitary trait, which the skill and industry of the planter, and the resources of the state, cannot beautify and adorn. But, gentlemen, this picture, which, in its present unenviable condition, we can behold with that respect and reverence, inseparable from the patriotic, but untaught labours of our forefathers, is destined to receive the impress of an unfriendly graphic pencil. To you then, nay, to you all, fellow-citizens, I say, arise—shake off your slumber, and mount the watch tower; for, it is not on one sentinel, but on the unslumbering eye of the community, that your prosperity as a people, mainly depends. The struggle in which we are engaged, unhappily with our own countrymen, is one of principle. On its issue, it may become the lot of the confederacy to prove that the blood and treasure of our ancestors were expended in an idle and chimerical enterprize. As long as it endures, a state of neutrality cannot, must not exist. The voice of every citizen should proclaim his individual opinion So fatal in its consequences to us, would be the establishment of the measures of policy contended for by our opponents, that our acts should neither exhibit a spirit of compromise, or be distinguished by a single concession. The cultivators of the soil are slow to be aroused to resistance, in any shape. They will bear evils, while evils are sufferable, before they can be persuaded that their injury is seriously meditated. To this cause is owing, in a measure, the anomalous spectacle of so inconsiderable a party as the manufacturers, swaying the deliberations of the national councils. Wily in their schemes, and bent on the effectuation of their purpose, their every movement proclaims a previous concentration of opinion. Under such circumstances, insulated efforts on the part of the people, will be ineffectual. The whole body of the consumers, in the undivided exercise of the supremacy of their power, can alone stay the arm which the federal government has raised to persecute and distress them.

Amid the gloom which the national policy has involved the southern section of our country, there remains one ray of consolation for this state, which no usurpation of authority can blot from the annals of history. Although the territorial limits of South Carolina are more circumscribed than fifteen of the twenty-four members of the confederacy; although in regard to her whole population, she has attained but the eighth rank in the Union, and the thirteenth only in reference to her white population; although one-twelfth of her arable land is in a state of nature, and but one-fourth of that quantity is annually cultivated; although her system of husbandry is notoriously deficient; and, although the income of her agriculturists seldom exceed four per cent; yet, from the value of her staple commodities, it may with certainty be affirmed, that she is now distinguished as the greatest exporting state of native products in the Union. It is under such heavy and numerous embarrassments, that she contributes more largely to the national treasury, by nearly a million and a half of dollars, than the New England states together. With this view of the commercial importance of South Carolina to the confederation, and a similar representation is, in part, applicable to the southern states generally, every tyro in politics is conversant; still, I am constrained to aver it, as my solemn conviction, that her interests, the property of her citizens, and their feelings as men and as philanthropists, weigh not a feather in the scale of the new-fangled dogmas of the present day. The federal government annually receives from this state a vast sum, only to be regularly expended elsewhere; to an onerous scheme of taxation, in the form of duties on imports, she is subjected to support an interest, created to appease the appetite of a few political fanatics; the perpetuity of her domestic institutions is incessantly endangered, not only by the incendiary proposals of her sister states, and the insulting proposals of abolition and colonization societies; but by the unceasing asseveration of members of Congress, who, in the discharge of a high and solemn trust, apparently delight to wander from the legitimate sphere of their duty, to preach a homily on the debasing effects of slavery. If this state of enmity to our peculiar but necessary policy, is destined to continue; if the Pelion of abuse is to be heaped on the Ossa of accumulating wrongs; if the altar of Moloch is to exhibit southern victims only; then, gentlemen, we have associated for an unprofitable purpose; then, indeed, every word that I have this night uttered, is but empty, unmeaning declamation. Let Congress adopt the contemplated woollens bill, and let it yield its acquiescence in the proposed measures of the Colonization Society, and I need not tell you, that the armour of Achilles will be wanting to protect you—your wives and children—your property—your state,—from the poisonous shaft that is already uplifted to strike its prey. Under the cover of the sacred banner of patriotism, may you continue to contend in the cause of truth and justice! May you remember, fellow citizens, that as a sovereign state, South Carolina entered the Union—as a sovereign state, she is now called on to maintain her dignity, support her rights, and assume an attitude demanded by the crisis.

APPENDIX.

(A.)—Value of the exports of rice, indigo and tobacco, from Charleston, S. C. in 1801, ...	$11,304,045
Total value of domestic and foreign Productions from South Carolina, to foreign ports, commencing on the 1st of October, 1823, and ending on the 30th of September, 1824, . . .	8,034,082
Supposed amount of domestic exports to the Northern States, for the same time, ...	8,000,000
	$16,034,082

Amount of Rice, Indigo, Tobacco, Cotton, and their aggregate value, exported from South Carolina, from 1796 to 1800, inclusive.

Year.	Tierces Rice.	Indigo. lbs.	hhds. Tobacco.	Cotton. lbs.	Value.
1796,	84,540	490	5,328	912,600	$7,600,337
1797,	80,837	96,121	3,961	1,008,511	6,459,524
1798,	74,277	19,838	4,638	2,476,431	6,946,924
1799,	70,426	6,892	9,640	2,801,996	8,729,015
1800,	75,788	3,460	7,927	6,425,863	10,554,842

B.

	lbs.
In 1800, the quantity raised was, according to Drayton,	6,425,863

Year.	*Sea Island.*	*Green Seed.*	
1824,	18,253	141,074 bags.	
1825,	12,647	161,543	
1826,	31,828	199,175	
		Total,	56,752,000

estimating the weight of the bags at 300 lbs. each.

C.

I have planted a particular field in cotton for five years successively. In 1826, it yielded 320 lbs. to the acre. In that year, one half of the field for the first time was manured with salt clay mud, and the residue, as usual, with stimulating, or animal manure. The product of the mudded portion of the land, was about one-third more than that realized from the animal manure.—Author.

D.

Six and a half acres of cotton, three and a quarter acres to the hand, annually; and two and a half acres for provisions. The cultivator of green-seed cotton will always, for the most obvious reasons, require a greater quantity of land. The evil alluded to, applies almost exclusively to the lower districts.

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[*] The only agricultural school in the United States, is the Rensselaer school, at Troy, in New York, alike distinguished for the originality of its conception, and its practical utility.

BOLIVAR.

[The following advertisement from one of best judges and managers of horses and cattle in this or any other country, shews how strictly the pedigree of improved cattle are preserved.]

Bolivar, the high bred imported improved short horned bull Bolivar will stand at the subscriber's stable in Charlestown, Massachusetts. This bull was selected by Mr. Coates, the keeper of the Herd Book, without limitation of cost, for the use of the Powelton stock, and is so highly valued by Colonel Powel, that he has always refused to sell him, and has consented to part from him but for a season, considering him in form, points, and pedigree, *equal to any animal to be had in Great Britain.*

Bolivar is red and white, is not three years old, and has never been forced; yet he *girts* immediately behind his fore legs 7 feet 8 inches. The singular neatness of his shoulder, the straightness of his back, the width of his loin, the smallness of his head, neck, and offal, the quickness of his gait, together with *the well known character of his family as dairy stock*, render him one of the most desirable males for improving our neat cattle, that can in any country be found.

Signed, SAMUEL JACQUES, Jr.

Bolivar's Pedigree, traced in the Herd Book.—Bolivar, red and white, calved May 5th, 1825, bred by J. Whitaker, Esq. England. Bolivar, by Frederick, dam Sweetheart, by Hermit; g. dam Buxom, (bred by R. Colling) by Lawnsleeves; g. g. dam by Brampton, (bred by R. Colling) by Favorite, the sire of Comet; g. g. g. dam Brighteyes, (bred by R. Colling) by Favourite; g. g. g. g. dam Old Brighteyes, (bred by R. Colling) by Favorite; g. g. g. g. g. dam by Favorite; g. g. g. g. g. g. dam by Punch; g. g. g. g. g. g. g. dam by Hubback; g. g. g. g. g. g. g. g. dam by Snowden's Bull; g. g. g. g. g. g. g. g. g. dam by Masterman's Bull; g. g. g. g. g. g. g. g. g. g. dam by Waistell's Bull.—Waistell's bull by Masterman's bull, Masterman's bull by the Stodley Bull. Frederick, the sire of Bolivar, roan, (bred by Mr. Charge) got by Holton, dam Orbit by Comet; grand dam Splendor by Comet; g. g. dam Fleck'd Twin by Major; g. g. g. dam Red Simmon by Favorite; g. g. g. g. dam Flecked Simmon by Bartle; g. g. g. g. g. dam Old Simmon (bred by Mr. Charge) descended from the Studley white bull.

[For dairy properties of short horns, see A. F. of 9th ult.]

HORTICULTURE.

[A thousand recipes, for "all the ills that flesh is heir to" and trees likewise, are published in our newspapers. Of these some are useful, some ridiculous, and some absolutely mischievous. Where any may possibly be of the latter description, they ought not to be promulgated but on good authority or after careful trial—but where from the nature of the prescription they can do no harm, if they do no good, we may venture, and perhaps ought to make them known; even though the greater portion of them may prove to be of no effect whatever, just as we would sow a handful of the mere chaff of a rare grain, which could not vegetate or do harm, for the chance of getting a single stalk from which to preserve and propagate its kind.

Hence it is that though our columns often contain things that prove on trial to be of no value, we think it better to record them, as, now and then, one may prove to be really useful—A great many peach trees in, and out of nurseries, are dying this year with the worm, as it is called, possibly one of the following may cure now, or prevent hereafter.]

FRUIT TREES.

A method of preserving fruit trees from the attacks of worms, is [said to have been] discovered by a young lady of New York, in the course of her experiments for the safety of a favourite peach tree. It is by pouring three or four quarts of boiling water around and upon the roots of the diseased tree. The remedy has been tried by her brother upon an orchard of 150 pear, peach, plum, apple and other trees, with invariable success.

PEACH TREES.

"It is not generally known, we believe," says the Saturday Evening Post, "that lamp oil, or fish oil of any kind (that which is inferior is equally as good for this purpose as that of a better quality) poured at the root of the peach tree, will effectually prevent the ravages of the worm that has heretofore proved so destructive to that valuable fruit tree. This discovery was merely accidental, and was made a year or two since; the wick of a lamp was carelessly thrown aside, and lodged at the foot of a tree, and while other trees in the same garden were injured materially by the worm, this remained entirely wholesome and sound. Since that time the experiment has been repeatedly tried, and with complete success. It should be observed, however, the oil will not compel the worm to quit the body of the tree, if there when it is applied, but will prevent it getting into it after the application. We are assured that the same process is in use in Long Island, and is found to be the only means which will secure the preservation of the peach tree."

CATERPILLARS.

(By General Dearborn—from the N. E. Farmer.)

There are many ways proposed for destroying this insect, which so much disfigures and injures our orchards. Destroyed they must be, by every orchardist, who has any regard even to appearance. In large trees, it is difficult to reach them. I have for many years practised the following method with much satisfaction to myself: I select a narrow strip of board, or pole of sufficient length to reach the top branches of my trees, and near one end make a hole with a tap-borer. In this hole I insert a painter's brush. I then prepare, in a small vessel, some thick soap suds, (any dirty soap will answer for this use,) and with the brush, while the worms are in their nests, apply the suds. This application will instantly kill every caterpillar, whether small or large, that is wet with it. I esteem the suds useful to the tree, and have often applied it to the bodies of such trees as appear bark-bound or otherwise unhealthy.

THE SILK WORM.

We published, a few weeks since, an article of some length upon the culture of silk worms; we are happy to learn, from several of our friends, that it was a most timely and acceptable offering, as a very large number of young persons took measures last summer, to have a supply of "spinners" this spring, and were accordingly abundantly furnished with the worms, while they were ignorant of the mode of rearing them to usefulness.

The great fault has been, the suffering the eggs to mature at too early a period before the mulberry trees had leaved; the consequence of which has been the loss of many millions of worms; although we are happy to learn, that the number at this moment nearly ready for the operation of spinning far exceeds the most sanguine expectations of the persons who have most liberally encouraged attention to this pleasing and future profitable economy.

It is thought that a considerable quantity of silk will be made this summer from the anticipated cocoons; and, indeed, if only a small part of the worms that we know to be in cultivation should be successful, no inconsiderable quantity of the precious article would be produced; but *patience* should be cultivated likewise. There should not be too much haste to procure *silk*. Let the cocoons mature another year, and in 1829 silk worms will be a subject of profitable attention, and parts of families will find in their cultivation a regular employment. We know several families who now have from three to four thousand worms; and as every fly that breaks the cocoon may be calculated on to produce on an average about 600 eggs, it will be readily understood, that another year will find the young people busy in providing food and cleanliness for their *protegees.* And as a want of appetite is rarely among the complaints incident to silk worms, we sincerely hope that measures will be taken to insure a supply of mulberry leaves to the market; the demand for which, for the present year, has almost exceeded the supply, and will the next season create a strong demand.

[*Sat. Ev. Post.*

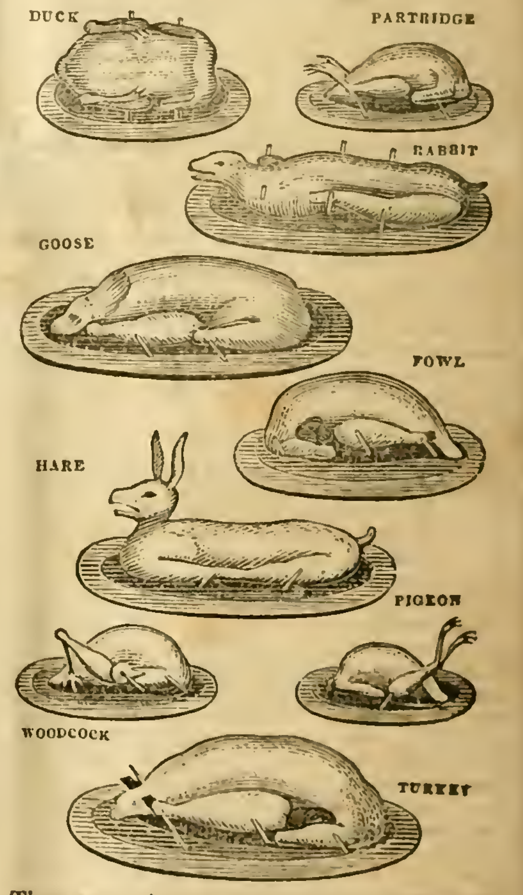
SILK CULTURE.

Extract from Woodville, Miss., May 6, 1828.

"Gen. Joor, Capt. Smith, and myself, who have been cultivating and raising silk worms this spring, have succeeded beyond our expectations. The crop is now finished, and they are housed in very beautiful cocoons of a brilliant orange colour, many of which have perfected themselves, and have laid us a new supply of eggs, from which we calculate on a second crop. M. L."

LADIES' DEPARTMENT.

TRUSSING POULTRY, &c.



There are various reasons why the experienced and prudent housekeeper should be properly acquainted with this necessary preparation to the art of cookery. In London *every* article is generally trussed by the poulterer of whom it is bought; but it frequently happens, that either from inexperience or negligence of the servants, and want of knowledge in the cook, the article appears on the table with disgrace. Another very substantial reason for the cook having this knowledge is, that the families in which they serve, are frequently where there are no poulterers, and consequently they are under the necessity of killing and trussing their own poultry To be prepared, therefore, for the execution of this business, we recommend a proper attention to the following general rules: Be careful that all the stubs are perfectly taken out; and when you draw any kind of poultry, you must be very particular to avoid breaking the gall, for should that happen, no means can be used to take away that bitterness, which will totally destroy the natural and proper taste of the article dressed. Great care should likewise be taken that you do not break the gut joining to the gizzard; for should this happen, the inside will be gritty and the whole is spoiled. These are to be attended to as general matters. We shall proceed to particulars, beginning with Turkies.

[The particular directions—as to turkies, fowls, chickens, geese, pigeons, wild fowl, woodcock and snipes, larks, hares, &c. will be given in a subsequent paper.]

Riding on Horseback.

"This is a graceful accomplishment for a lady," says major Noah, "and we are pleased to see it cultivated by their taking lessons at approved riding schools. It promotes health—strengthens the nerves—gives firmness to the system and confidence to the mind, and though rather costly, it is nevertheless a luxury, combining so much utility, that it may be recommended during the season. We have not, however, been able to discover the reason why a lady preparing to 'witch the world with horsemanship,' should think right to caparison herself, with a heavy riding habit and a man's hat,—or in place of a man's hat a bonnet almost crushed by nodding plumes. It looks amazonian, it is true, but not tasty or graceful. The mere riding on horseback does not unsex a lady more than riding in a carriage; it is a change of conveyance only, and if it requires a change of dress, it does not demand one so very heroic and masculine."

SPORTING OLIO.

WILDAIR.

Mr. J. S. Skinner, *Lexington, May 19th*, 1828.

Sir—Feeling a strong desire that no mistakes take place in the pedigrees given of our blood horses; I take the liberty of calling your attention to an error, in your paper of the 9th inst., that you may correct it as soon as convenient—in No. 8, vol. 10, May 9, in the pedigree given of Diana, it is stated, Wildair was imported—and, following immediately, and as I suppose from the reading, this Wildair's pedigree was intended to be given, and Simms' Wildair's pedigree is given in place thereof. "Wildair was imported by Mr. Delaney of New York, was got by Cade out of the Steady Man, her dam by Partner, Gray Hound, Matchless, Counsellor, Brimmer, Places' White Neck, &c.; he was re-shipped to England.

Virginia Wildair, raised by Mr. Symmes, is correctly stated, and substituted for that of the imported Wildair.

With sentiments of regard,
Your obedient servant,
E. WARFIELD.

MISCELLANEOUS.

INDIAN MODE OF FISHING.

The Bay of Manta, in South America, has probably its name from the great quantity of mantas in those parts, the Indians being chiefly employed in taking those fish, which they salt and carry to the inland provinces. The Europeans cannot help admiring their dexterity in this kind of fishery, which they carry on in the following manner: they throw into the water a log of wood, such as they use in making a balza, being about five or six yards in length and near a foot in diameter. This log will be sufficient to support the weight intended, which consists of a net lying across one end of it, and the Indian standing in an erect position on the other. On this tottering vessel, assisted by only a single oar, he puts off to sea, about the distance of half a league, where he shoots his net. Another Indian follows him on a similar log, takes hold of the rope fastened to one end of the net, by which means the whole is expanded, and both the Indians move towards the land, where their partners wait to draw their net on shore. In this occupation the dexterity and agility of the Indians in maintaining an equilibrium on round logs of wood, is truly amazing: for the continual agitation of the sea renders it absolutely necessary for them to be continually changing their position, and making different motions with their bodies; and what still heightens the difficulty is, that the Indian is at the same time obliged to mind both his oar and his net, in drawing it towards the land. They do, indeed, sometimes, though very seldom, slip off their logs; but being excellent swimmers, they recover their bark, and in an instant place themselves in their former situation.

THE DOG.

Leonard Zolikoffer, a Swiss Nobleman, who went to Paris on the conclusion of the Swiss Union, as Ambassador, had a large dog, whom on his departure he had ordered to be shut up for eight days, the dog was so, and yet at the end of eight days traced his way to Paris, (400 miles,) and on the day of audience made his way, all covered with mud, and leaped up, mad for joy, upon his master. In the family castle, at Thuringa, there is a painting of the story.—The dog is the only animal that dreams; he and the elephant the only animals that understand looks; the dog is the only animal that has been brought to speak. Leibnitz bears witness in his History of the Academy of Sciences at Paris, to a hound in Saxony, that he could speak distinctly thirty words. A friend came to Morant, the famous French surgeon, and entreated him as a mark of friendship, to attend his hound who had broken his leg. Morant cured him, and in about four weeks after, as he was at breakfast, heard a whining and scratching at his door, and on opening it, beheld his old patient with another dog who had broken his leg, making signs to be healed. Dogs are put to an amazing variety of uses. In Otaheite, they are fattened on bread and fruit for eating; in Kamschatka they are used for drawing sledges; in Upper India for beasts of burden, as mules and pack-horses; by the Jesso Islanders for fishing. Blumenbach rather thinks that all the varieties of dogs do not come from one original sort. [*London paper.*

DEPORTED SLAVES.

The board of commissioners under the Ghent treaty, and subsequent conventions concerning deported slaves, is still in session in this city. It is expected, we learn, that they will adjudicate, during this term, all the cases which have been submitted to their determination. They will meet again, at some subsequent period, and finally act on all the claims. There are, we understand, a number of claims on the definitive list, which have not been docketed, and which, at the next term, will be wholly excluded, unless previously attended to. We learn that a great many deported slaves have been lost to the owners by the failure to have them placed on the definitive list.

The average value *allowed* for each slave deported, is as follows:

From Louisiana, ...	$580
Georgia, South Carolina, and Alabama,	390
Virginia, Maryland, and all other states,	280

These sums being awarded for each slave *allowed*, the owners have received, or are entitled now to receive 75 per cent. of that amount. The residue of 25 per cent. will be paid upon winding up the business, or apportioned, if the fund should prove inadequate to pay the whole. [*Nat. Int.*

Writ for the Medical Convention of 1830.

Whereas the convention that was held at the City of Washington, in the month of January, 1820, for forming a Pharmacopoeia for our United States of America, did resolve that the president of that convention should, on the 1st day of January, 1828, issue writs of election to the several incorporated state medical societies, in the northern, middle, southern and western districts of the nation, requiring them to ballot for three delegates to a general convention, to be held at Washington, on the 1st day of January, 1830, for the purpose of revising the American Pharmacopoeia; and whereas the several institutions, as aforesaid, are, by the same authority, requested to forward to the president, on or before the first day of April, 1829, the names of the three persons so chosen; with sundry other provisions contained in the historical introduction to the work, to which the reader is referred.

Now therefore, I, Samuel L. Mitchill, by virtue of the power vested in me, by the convention of 1820, do hereby give notice, to all the incorporated medical societies, colleges of physicians and surgeons, medical schools, and faculties of universities and colleges, and all other authorized bodies, that they choose proper persons to represent them in the general convention to be held in January, 1830, for revising the Pharmacopœia.

Given under my hand, this first day of January, 1828, at the city of New York.

SAMUEL L. MITCHILL, *President.*

STEAM.

Amongst the various purposes to which steam has been applied, perhaps there is none that will be of greater advantage to the people of the United States, than the discovery recently made of its application to the purpose of bleaching linen and muslin. It will be of essential service to our infant manufactories. We have samples left at our office of thick linen drilling, which were bleached in the short space of ten hours, without the least injury to the fabric; and of cotton which was bleached in a much less time.

We understand a patent has been obtained for this improvement, and that a company are making application to the legislature to be incorporated with a capital of one hundred thousand dollars, that its benefits may be tested by the community. [*Albany Argus.*

Make a slow answer to a hasty question.

FRENCH INDUSTRY.

The Society for the encouragement of National Industry in France, exhibits great and laudable activity. A number of medals and other rewards have lately been distributed to various agriculturists, manufacturers, &c. and the prizes of different amount are offered for the productions and inventions of the present year; among others, 2,000 francs for the fabrication of bricks, tiles, &c. by machinery; 1,000 francs for a machine to shave the hair off the skins employed in hat making; 2,000 for an isinglass or other substance, capable of clarifying beer; 6,000 francs for a factitious ultramarine; 3,000 francs for the fabrication of paper from the bark of the *morus papyrifera*; 2,400 francs for a new method of silvering looking glasses; 1,500 for the improvement of the materials employed in copper plate engraving; 5,000 francs for the dessication of meats; 600 francs for a mill for cleansing buck-wheat; various prizes for the construction of simple instruments for extracting sugar from beet root; for the importation into France, and the cultivation of plants, useful in agriculture, manufactures and the arts, &c. The amount of the prizes offered is 122,500 francs.

RECIPES.

RATS.

Mr. Skinner,

Last year I had my smoke house so visited by rats, that they appeared to threaten destruction to all my bacon, and even damaged some of it after it was hung up and nearly smoked. I set a number of traps of several different sorts; and when I caught a rat, it appeared, as the old woman said of the flies, when she killed one, as if there came two or three to bury it. I had recourse to arsenic, but without much success: and I saw in your valuable work a publication of the cork experiment, I would not have had faith to try it, but that I had known it kill dogs.* I then fried a composition of things which I knew the rats were fond of, and fed them on it two nights in succession; the next day I prepared the cork, and chopped it about the size of large duck shot. I then fried it in the same sort of materials as before; and the two first nights they preyed on it tolerably well; the third night not so much, and in about six days and nights they all disappeared! And what is very strange, we never found one dead. I am perfectly satisfied that not one fourth of those sagacious animals ever got a taste of the fried cork; but those that got troubled with it, must have alarmed and carried off the rest. Now you must know that this has been done more than ninety days, and I beg you to excuse my not telling you of it sooner; but the fact is, I was afraid that their absence was too good company to last, and expected they might return in a few weeks; but I see no sign of any as yet; therefore think the experiment worth trying through the United States, as they are troublesome boarders.

A Subscriber in Maryland.

A NEW AND CHEAP PAINT,

More impervious to the weather than common paint.

Take of unslacked lime a quantity sufficient to make two gallons of white wash when slacked—mix it with a due quantity of water—add to it 24 lbs. of brown sugar, and about 3 oz. of salt. The exact proportion of each will be best ascertained by experiment. This when applied as a paint, becomes perfectly hard and glossy—by mixing either ivory black or lamp black with the ingredients, a beautiful lead colour may be had, or a yellow by mixing suitable ingredients—this paint is now almost altogether used at the south for houses, fences, &c.

[*N. Y. Com. Adv.*

RASPBERRY WINE.

Take eqaul quantities of fruit and water, bruise and let them stand two days, then strain it, and to every gallon put four pounds of coarse sugar; when dissolved, put the liquor in a barrel, and when fine (which will be generally in three months,) bottle it, and in each bottle put a large spoonful of brandy.

THE FARMER.

Baltimore, Friday, June 6, 1828.

Maryland Agricultural Society.

A stated meeting of the trustees of the Maryland Agricultural Society was held on 29th May, at Oaklands, the residence of Mr. Thomas Oliver.

Present ten members and the corresponding secretary and treasurer.

A letter was received from Mr. James Howard, resigning his situation as recording secretary to the society, upon which the trustees passed a resolution expressive of their high respect and esteem for Mr. Howard, and their regret for his resignation.

Mr. David Williamson having repeated his resignation as a trustee, which had been refused at a previous meeting, Mr. Charles Carroll, Jr. was appointed in his place.

A committee, consisting of John B. Morris, James Cox and James Carroll, Jr. was appointed to draft a scheme of premiums for the next exhibition of the society, to be submitted to the board of trustees at their next meeting.

Mr. Henry Thompson was unanimously appointed recording secretary to the society.

The board adjourned to meet again on Thursday the 19th of June, at Hunting Ridge, the residence of James Swann, Esq.

☞ Room has at last been found for the able address of Mr. Seabrook; so long and reluctantly postponed—but its length has compelled us to lay aside, now, many original and selected articles of various character and particular interest.—The one on washing wool on the sheep's back, from Mr. Hurlbert of Connecticut, ought, perhaps, in reference to the season, not to have been deferred even until next week, but we could not well avoid it.

☞ There have been arrivals, bringing news from Europe to the first of May, but there are no items of a character that bear materially on the agricultural community, and the products of their labour. Most sincerely do we lament the ravages by hail storms in the fields of gentlemen in different parts of the country, for the prospect of a great harvest of grain of all kinds, leads us to anticipate low prices for what remains to those who have thus lost a large portion of their crops.

☞ A committee will meet on Friday next to frame a scheme of premiums for the next cattle show—we are sure that they will be glad to receive hints on that subject from any member of the Maryland Agricultural Society, or other practical agriculturists.

☞ There are samples of rye in the office of the American Farmer, from the neighbourhood of Baltimore; the one seven, the other eight feet two inches high. By the by, will it not be well for farmers to look ahead in time and make the necessary preparation for their harvests—to clear other work out of the way, get their scythes in order, engage their force, &c.? Is it not to be expected that grain of all kinds will ripen earlier than common? and we believe it is an established fact, that wheat and other grain is the better for being cut before it is entirely ripe and hard.

PRINCE'S TREATISE ON HORTICULTURE.

"A Short Treatise on Horticulture, embracing descriptions of a great variety of fruit and ornamental Trees and shrubs, Grapevines, bulbous Flowers, Greenhouse Trees and Plants, &c.—nearly all of which are at present comprised in the collection of the Linnæan Botanic Garden, with directions for their culture, management, &c.—by William Prince, proprietor of the establishment"—price $1, for sale at this office—where may also be had

Memoirs of the Pennsylvania Agricultural Society, 1 vol. 8vo. (*with engravings,*) price $1 in boards, or six copies for $5.

Hints to American Husbandmen, with Original Notices and Extracts on Selecting and Breeding Neat Cattle and Sheep, (*with an engraving,*) price $1.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 4.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Inspected the last week 377 hhds. Maryland, 142 Ohio, 10 Kentucky, 8 from Pennsylvania, and 3 from Virginia.

Flour—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .67 *a* .92—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—Corn, .31 *a* .33—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .50 *a* .55—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, .21½ *a* 22—bbls. 22½ *a* 23—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 50; do. trimmed, 6.50—Herrings, No. 1, bbl. 2.50 *a* 2.75; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5 25 *a* 5.50; No. 2, 2.25; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

Marketing—Apples, bush. 2 50 *a* 3.00; Butter, lb. .12½ *a* 25; Eggs, dozen, 10; Potatoes bush. .50; Onions, do. .50; Chickens, doz. 1.50 *a* 2.00; Beef prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6½ *a* .7; Pork, 4.50 *a* 5 00; Green Peas, per bush. .50 *a* .75; Radishes, bunch, .2 *a* .3; Lettuce, large heads, .3 *a* 4; Cauliflowers, do. 25 *a* 37½; Carrots, .75; young Ducks, per doz. 2.50 *a* 3 00; young Lambs, dressed, 1.75 *a* 2.00; do. Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Strawberries, per quart, 18¾; Gooseberries, do .18 *a* .20; Currants, do. .12½; Cherries, do. .10 *a* .12½; Soft Crabs, doz. 1.00 *a* 1.25; Hard do. do. 12½ *a* 18¾.

Hay, per ton, $9.00; Rye Straw, 5.50 *a* 6.00; Cut Grass, per bundle, .10 *a* .12½.

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AGRICULTURE.

(Communicated for publication in the Am. Farmer.)

A COMMON-SENSE ADDRESS

To the Citizens of the Southern States.

I undertake to prove that—

"All the distress and ruin experienced in the south, have arisen from the system of policy so ardently supported by the southern states themselves, and that they will be eventually as much interested in a change of system, as the middle or eastern states."

I will assume as postulata—

1. That an undue increase of the quantity of any article depresses the price, and with scarcely an exception, in a ratio far beyond the ratio of increase; so that an increase of the quantity ten per cent. may, and frequently does decrease the price 30, 40 or 50 per cent.

2. That the increase of the production and export of cotton in and from this country, has glutted all the markets of the world, so as to reduce the price of uplands from 32 cents per pound in 1818, to 9 a 13 in 1828, and been the great cause of all the distress in the cotton growing states.

3. That the chief cause of this undue and impolitic increase of production has been the unprofitableness of other agricultural labour, which has driven great numbers of farmers to the raising of cotton.

Now, these positions being admitted—and I trust that they will not be denied—if I prove that our policy has steadily tended to increase the number of farmers—to diminish their markets—and of course to render farming unprofitable,—it will follow as a corollary, that the distress experienced in the southern states, through the depression of the price of their grand staple, has arisen from that policy.

It is a fact of public notoriety, that the want of protection of manufactures by our government, spread desolation and bankruptcy among the manufacturers in 1816, and for six successive years—that their factories were sold for a 4th, a 5th, a 6th, or an 8th part of the cost, and that thousands of operatives were thrown out of employment. Of these a large proportion "*went back*," as was the favourite phrase, and became farmers; thus converting the valuable customers of the farming class into formidable rivals. Hence the depression of the farming interest; the glut of the markets with grain and other farming articles; the pernicious reduction of the value of lands—and the necessity that drove farmers in North Carolina, Virginia, Maryland and other parts of the country, to become cotton planters.

There are no data by which to ascertain the extent of the deprivation of employment of the operatives generally—but fortunately we have two documents to prove how pernicious its effects were in Philadelphia and Pittsburg—and it is not unfair to conclude that the evil was felt proportionably elsewhere.

The year 1819 will be long remembered in the annals of this country as signally calamitous. Intense distress prevailed almost universally, the obvious consequence of the extravagant importations of the four preceding years, amounting to the enormous sum of $400,000,000. An inquiry was instituted in Philadelphia in order to compare the number of operatives employed in that year, with those employed in 1816. It appeared that in thirty branches, there had been employed in 1816, no less than 9672 persons; whereas in 1819, there were but 2137 employed in those branches, making a diminution of 7435 persons.* There were twenty-six other branches from which no information was procured, viz: bookbinders, brewers, brick-makers, carpenters, coopers, chocolate makers, calico printers, curriers, chair-makers, dyers, engravers, embroiderers, glovers, glass manufacturers, manufacturers of gunpowder, painters and glaziers, plumbers, shoemakers, sugar bakers, shot-makers, snuff and tobacco manufacturers, stone-cutters, turners, tanners, umbrella-makers, wheel-wrights, &c. Suppose that only half the number were divested of employment in those branches, it would make an aggregate of 11,000 persons, with their families, in one city.

The persons deprived of employment in Pittsburg, within the same space of time, amounted to 1288. Several thousands were reduced to the same situation in Rhode Island.

I trust that it does not require an extraordinary degree of candour to admit that this state of things, which extended throughout the middle and eastern states, with more or less of its hurricane ravages, satisfactorily accounts for the depression of farming. Had all these persons been exiled, and thus withdrawn from the demand for the products of agriculture, the injury to the latter interest would have been severe—but, converted from consumers into producers, the system was doubly pernicious, and operated as a two-edged sword on that great leading interest. Hence it follows that a policy, intended for the peculiar benefit of agriculture, and to enable farmers and planters to purchase cheap imported goods, was the bohon upas of its prosperity. Our statesmen, who all professed to be warm admirers of Adam Smith, disregarded incomparably the best maxim in his work—a maxim, so far as regards this country, worth all the rest of it—but which has been reiterated, times without number, to no purpose.

"Whatever tends to DIMINISH in any country THE NUMBER OF ARTIFICERS AND MANUFACTURERS, *tends to diminish the home market*, THE MOST IMPORTANT OF ALL MARKETS FOR THE RUDE PRODUCE OF THE LAND, AND THEREBY STILL FURTHER TO DISCOURAGE AGRICULTURE."—Wealth of Nations, Hartford edition, vol. 2, p. 149.

That our policy has, until the adoption of the tariff of 1824, uniformly tended "*to diminish the number of artificers and manufacturers*"—that it has, of course, "*diminished the home market*," and thereby "*discouraged agriculture*," in all its shapes and forms; farming first of all, by increasing production, and diminishing the markets; and then cotton and tobacco planting, by crowding on them the superfluous farmers, I trust will not be controverted.

The immense extent of the cotton lands of this country would produce a great increase of the article, let us pursue what policy we might; but the increase under a sound policy would have been gradual, and only kept pace with the increase of consumption. But the hot bed system we pursued, by creating an undue increase of cultivators, has been fraught with ruin, and is the cause of the calamitous state of affairs depicted so feelingly and so forcibly by Mr. Carter, a member of Congress from South Carolina.

"In the south, the prostration of their foreign markets has spread over the face of the country a general pervading gloom. In all that region which stretches itself from the shores of the Potomac to the gulf of Mexico, where all the arts of civilized life once triumphed, the arm of industry is now paralyzed. *Large and ample estates, once the seats of opulence, which supported their proprietors in affluence and comfort, are now thrown out to waste and decay.*"

The distress is depicted in equally strong terms by the Charleston Chamber of Commerce:

"*Property of all kinds has depreciated beyond example. A feeling of gloom and despondence is beginning to prevail every where in the lower counties.*—ESTATES ARE SACRIFICED TO PAY THE LAST INSTALMENTS ON THE BONDS GIVEN FOR THE PURCHASE MONEY. NOBODY SEEMS DISPOSED TO BUY WHAT EVERY BODY IS ANXIOUS TO SELL AT ANY PRICE."

Against the miserable system of glutting the markets with our cotton, the Liverpool and London merchants have from year to year in vain entered their protest. I have now before me scores of circulars, from 1818 to 1827, in which the most cogent admonitions are held out on the subject. My limits forbid any extensive quotations from them. I shall therefore confine myself to six or seven.

"*While the imports continue to exceed the consumption*, great as it is, THE PRICES MUST CONTINUE TO DECLINE; and will no doubt become so low as to cease to remunerate the planter for the expenses of production—and thereby to diminish the future growth."—*Bolton, Ogden & Co. Liverpool, Jan.* 13, 1821.

"*As there appears to be too much cotton grown, it becomes doubtful if prices will improve*, UNLESS THE PRODUCE IS DIMINISHED, and time alone can show how far the present reduced rates may have that effect, or tend to keep back supplies." *Morrall, Watson & Co., Liverpool, Jan.* 13, 1821.

"As regards the new crop, *almost every thing as to price, must depend upon its extent in America.* * * If your crop cannot be increased beyond the produce of the last crop, the consumption will, in all probability, as far as American cotton is concerned, soon overtake the supply; in which event, *an important advance might be reasonable calculated on.*"—Curwen & Hagerty, Liverpool, Nov. 1, 1822.

"*While this excess of supply continues*, PRICES MUST BE VERY LOW; and it is rational to expect that *a reduction must take place in the United States*, corresponding with the rates paid in this country."—*Yates, Brothers & Co*, *Jan.* 30, 1821.

A letter from London, dated September 6, 1822, after stating the increase of consumption, and the reduction of the stock on hand, goes on to state—

"These circumstances would lead to early and material improvements in price, were it not for the large quantities pressed on the market by American importers in most rapid succession, *quantities which destroy all confidence in the article, and prevent all speculation.* * * The only effectual security for the future is a larger stock on your side, and THE CESSATION OF SHIPMENTS WHICH PRODUCE SO GREAT, SO OVERWHELMING A PRESSURE ON THIS."

"It has been matter of considerable astonishment to us that American cottons have continued to arrive, *bought at high prices, compared with what they will bring here*, and in the face of the discouraging accounts from this during the whole year. We are decidedly of opinion that *we cannot look for any permanent or considerable improvement in the article*, until the prices get so low with you that THE PLANTERS HAVE NO ENCOURAGEMENT TO EXTEND THEIR CULTIVATION."—*W. & J. Brown, Liverpool, Aug.* 8, 1822.

Cropper & Benson, in a general circular of September 27, 1822, after commenting on the effect of glutted markets, state, that if either less cotton were raised, or more consumed at home, the planters "MIGHT SELL THEIR SURPLUS COTTON AT ANY PRICE."

I cannot help flattering myself into the opinion, that I have made out my case, and have proved the utter, the direful impolicy of the system to which the southern planters have clung with the grasp of death, and which has rendered a mere drug in all the markets of the world, one of the most valuable gifts of nature, perhaps the most valuable, iron excepted; which has blasted, and withered, and blighted the prosperity and happiness of one of the fairest portions of the country—a system, the advocates of which utterly disregarded the admonitory fable of the belly and the members—a system in fine, which, while it devoted so large a portion of the manufacturing class to destruction, ultimately recoiled on its supporters with equal violence. Few of the manufacturers, particularly those of cottons and woollens, of 1816, '17, and '18, escaped ruin. But they have been succeeded by a new race, who have entered the field under far more favourable auspices than their predecessors, and availed themselves of factories purchased at the lowest rates—of superior skill—of larger capitals—of increased protection--of improved machinery—and above all, of a constantly increasing partiality in their favour, the result of the excellence of their productions. They are now, with few exceptions, the most prosperous interest in the country—and let it be observed, as a most important fact, that whatever general prosperity pervades the nation, is chiefly owing to their flourishing state, whereby our demands for the productions of foreign industry are brought nearer to a level with our capacity to pay for them with our produce, which, in consequence of foreign restrictions and reduced prices, is inadequate to that purpose at present. But for this reduction of our demands for foreign merchandize, the inevitable drains of specie would endanger the safety of our banks, and produce such awful scenes of distress as prevailed throughout the land in the never to be forgotten years 1816-17-18-19 and '20.

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* Some idea may be formed of the destructive nature of the policy by which so large a portion of the operatives of the United States were divested of employment, by stating that the wages of those thus circumstanced in Philadelphia alone, amounted to probably $60,000 per week, equal to about $3,000,000 per annum. Supposing their work to be double the amount of their wages, it would be an injury to the amount of $6,000,000 per annum, to a single city.

I proceed to exhibit certain tabular statements, intimately connected with, and confirming the above positions.

Import and Consumption of Cotton in Great Britain for ten years.

	United States. Bales.	Brazil. Bales.	All other sorts. Bales.	Total. Bales.	Consumption. Bales.	Stock at the end of the year.
1818	206,400	160,200	301,900	668,500	424,000	297,500
181	205,010	125,090	214,780	544,880	425,540	350,340
1820	301,050	179,910	89,163	570,210	488,030	404,780
1821	301,137	122,309	67,177	490,623	486,473	356,300
1822	328,274	144,552	59,052	531,878	541,690	286,434
1823	448,307	148,511	71,589	668,407	535,656	383,393
1824	282,460	142,559	115,579	540,598	636,401	235,300
1825	422,912	196,470	200,354	819,727	564,187	415,500
1826	394,637	56,249	129,395	560,281	551,453	342,306
1827	495,506	84,828	74,587	654,921	681,000	446,825

This table fully proves that it is our cotton that gluts the British market; and the same is of course to be presumed of all other markets.

Our average export to Great Britain for 1819, 20, and 21, was bales . .	237,686
For 1825, 6, and 7, was . . .	437,685
Making an annual increase of . .	199,999
The average export from the Brazils for 1818, 19, and 20, was . . .	155,336
For 1825, 6, and 7, was . . .	112,515
A decrease of	42,821
The average export from all other parts of the world for 1819, 20, and 21, was	201,947
For 1825, 6, and 7, was . . .	134,775
A decrease of	67,172

It is not wonderful that the price has been, and has continued, reduced, when it appears that there is generally on hands a full supply for seven or eight months. At the close of the year 1825, there was on hands nearly nine months supply.

The imports of cotton into Great Britain for the four first months of 1826, 1827, and 1828, were as follows:—

	United States. Bales	Brazil Bales.	East India. Bales.	Egyptian. Bales.	West India, &c. Bales.	Total.
1826	126,103	20,976	24,428	20,218	4,141	195,866
1827	192,895	18,904	16,432	8,073	7,051	243,405
1828	141,829	44,335	27,500	6,610	3,491	223,765

Thus it appears that the imports from this country have fallen short no less than 50,000 bales in the first four months of this year, compared with the same months of last year. The result of this diminution is exhilarating, and affords strong additional confirmation of the doctrines stated above. The prospect of a continued reduction of quantity has induced the speculators to enter the market, and given it a degree of activity which it has not had for a long time past. The sales have increased, and the prices have risen about 8 per cent. and are likely to rise higher. This state of things is depicted in a Liverpool circular of April 30, of which I annex an extract.

"*The accounts of short crops in various parts of the United States having been followed by considerably diminished imports from thence,* there has been AN INCREASED DEMAND FOR COTTON. The sales of the last six weeks averaged 18,250 bags per week, of which *nearly one fourth have been on speculation.* The prices of the common qualities of Upland, Orleans, Mobile, and Tennessee, have advanced one half-penny, while the advance on the better qualities has not exceeded one farthing: and on Sea Islands, *which are scarce,* (particularly the finer qualities,) IT HAS BEEN A PENNY TO A PENNY HALF-PENNY."

"The late accounts from the United States have represented that the supplies from thence to this country in the present year, will not exceed 400 to 450,000 bags: *and could these be relied on, and especially if there shall be a reasonable probability that the supplies from thence in* 1829, *will not exceed* 500,000 *bags, we would say that* SUCH CIRCUMSTANCES WOULD WARRANT A FURTHER ADVANCE IN THE PRICES HERE OF A HALF-PENNY TO A PENNY PER POUND."

Details of the Produce of the Cotton Crop of the United States for 1826 *and* 1827.

	1826.	1827.
Louisiana, Mississippi, Tennessee, Upper Alabama, and Arkansas, ...	251,959	336,870
Lower Alabama, . . .	74,201	89,707
Florida, ...		4,163
Georgia, ...	190,592	233,920
South Carolina, ...	111,978	179,810
North Carolina and Virginia,	88,480	112,811
	717,210	957,281

From this it appears that the produce of Virginia, and North Carolina, where formerly cotton was scarcely ever raised for exportation, was greater in 1827 than that of South Carolina in 1826, and will continue to increase in those states; for low as is the price, it remunerates better than the culture of grain, at the present prices. This, I repeat, and it cannot be too often repeated, is the necessary result of the depression first of manufactures, and then of farming.

Quantity and Value of the Exports of Cotton from the United States for nine years, from the Treasury Returns.

	Pounds.	Dollars.
1819	87,997,045	21,081,769
1820	127,860,152	22,308,667
1821	124,893,405	20,157,484
1822	144,675,095	24,035,058
1823	172,723,270	20,445,520
1824	142,369,653	21,947,401
1825	176,450,457	a bubble
1826	204,535,415	25,025,214
1827	284,300,115	29,359,545

This table ought to be studied with intense interest, particularly by those desirous to promote the prosperity of the southern states. It sheds strong rays of light on the pernicious tendency of our policy, and proves the soundness of the policy of Holland respecting the spice trade, which carefully guarded against glutted markets. It appears—

1. That the increase of export in 1820, was nearly 40,000,000 lbs. whereas the increased amount of the proceeds was only $1,200,000.

2. That the increase in 1823, was 28,000,000 lbs. whereas the proceeds fell short of those of the preceding year, $3,500,000.

3. That the decrease in 1824, of 30,000,000 lbs. raised the price so much that 140,000,000 lbs. produced $1,500,000 more in that year than 170,000,000 in 1823.

4. That the export in 1826, was 62,000,000 lbs. more than in 1824, whereas the increase in the amount was only $3,000,000.

5. That the export increase in four years, from 1819 to 1823, above 84,000,000 lbs. whereas the proceeds fell short $600,000.

6. That since 1819, the export has increased nearly 200,000,000 lbs. that is, more than trebled, whereas the proceeds have increased only $8,000,000, or about 40 per cent.

7. That an increase of 80,000,000 lbs. in the last year, produced an increase of only $4,000,000, equal to about five cents per lb.

8. That increasing the quantity has in all cases reduced the price, and in some instances reduced the total amount.

9. That a decrease of the quantity has increased the proceeds.

Although the whole of this table is fraught with instruction, there is one particular item which speaks louder and more convincingly than the rest. The export from this country, in the year 1824, fell short about 30,000,000 lbs. of that of 1823--and in the early part of the year 1825, the impression in that country was general, that the export of 1825 would not exceed that of 1824. This was the grand cause of the exurbitant rise of price that took place from week to week as long as the delusion lasted. But as soon as it was dispelled, and it was found that there was a great increase, the speculators forced the article on the market, and every one knows the result. It cannot be doubted, that had the crop of that year really fallen short 80,000,000 of lbs. or had that quantity been by any means withheld from the market, the price would have never sunk probably below a shilling per lb. for Uplands—and thus two-thirds of the calamity that befel the two countries would have been avoided. So much for the policy of the United States contrasted with the well-known policy of Holland.

It now remains to consider whether any, and if any, what remedy can be applied to the evils under which the cotton-growing section of the country labours. The first step towards a cure, moral or physical, is to ascertain correctly the source and nature of the disease. Both are fully developed here. It is abundantly proved, that those evils arise solely from excess of production, whereby an article of first necessity is rendered a complete drug. The remedy then is to use all fair means to render production no more than commensurate with demand. How is this to be done? In various ways. By increasing consumption at home—by encouraging manufactures of every kind, so as to induce many of those who have abandoned them to return, thus converting rivals into customers—and also to induce foreign manufacturers to migrate to this country from Europe—by both these means increasing the market for the productions of the farmer, and so far improving his condition as not only to put an end to all inducement to change his occupation for cotton-planting, but to induce some who have quitted the former for the latter, to return to farming. In one word, let us in every thing reverse the system of 1816-17-18 and 19—and then the United States will gradually attain that high degree of prosperity and happiness, to which their immense advantages, natural, moral, and political, entitle them to aspire, and which nothing but a most mischievous policy could have prevented. All which may God in his infinite mercy grant.

Si quid noristi rectius istis,
Candidus imperti: si non his, utere mecum.

I hope it will not be improper to request the reader to bear in mind, that in this question I never had the least private interest, even when in extensive business—and that the course I have pursued has been attended with every species of discouragement and inconvenience, to which nothing but the immense magnitude of the object could have induced me to submit. *Sat verbum.*

Philadelphia, June 4, 1828. Hamilton.

ON WASHING WOOL ON THE SHEEP'S BACK.

Winchester, Conn., May 29, 1828.

J. S. Skinner, Esq.

Sir,—I observed in the American Farmer of the 16th inst., Mr. Dickinson's account of the manner of washing wool on the sheep's back in Ohio.

The process described by him is the old method practised in New England by our forefathers, and is still the practice with many. But since the introduction of fine sheep, the people of this region have improved upon the old system. As the improvement is considered of importance, both in regard to saving of labour, and, what is of more consequence, the better cleansing of the wool, I will give you some account of it.

We build a vat near some pond or stream where the water can be let into it in sufficient quantity; a very small stream will answer. The vat is 34 inches deep, 12 feet long and 4 feet wide, and elevated at the upper end 4 inches, and for convenience ought to be *sunk* into the ground one half it's depth. On one side is the pen for the sheep before washing, the vat forming a part of the enclosure. On the other side a platform or walk of boards or plank is laid, connected to and level with the top of the vat, extending to the grass ground, on which one stands to tag and receive the sheep after washing. The water is let in at the upper end of the vat, by a trough made by nailing two strips of boards about six inches wide on to the side of a plank, say fifteen inches wide; the lower end of the trough to be twenty inches higher than the surface of the vat. To perform the labour to advantage three hands are requisite; one to put the sheep into the vat, one to stand in the vat and wash, and one on the platform as before described. From eight to ten sheep are continually in the vat, and the one longest in is washed first.

Thus the wool has sufficient time to soak, so that when the animal is conducted by the man in the vat under the stream of water pouring from the trough, the dirt is immediately washed out.

Squeezing the wool when washing is considered bad policy and ought to be avoided, as it will prevent much of the dirt from escaping. Every part of the animal should be brought under the pouring stream, which opens the wool and washes it as clean as water can make it.

In this way one hundred and twenty sheep may be thoroughly washed in an hour; that is at the rate of two each minute; and the labour in putting in and taking out is very trifling, and the man in the vat is the only one exposed to be wet, and him much less than every person employed in the old way—and besides this, the wool will be from six to ten per ct. cleaner, and as Mr. Dickinson very justly remarks—"The farmer need not fear washing money out of his pocket into that of the manufacturer, as it adds greatly to the reputation of his wool to have the fleeces well washed." The place which we occupy is located beside a very small stream, and the whole expense of fixing it some six years since, was not over five or six dollars, and as many as fifteen or twenty farmers wash their sheep there. This is the season for washing sheep with us, and we farmers take some encouragement from the tariff bill recently passed by Congress. In regard to wool we think the duty high enough, but the manufacturer will doubtless need some further encouragement, which they will doubtless receive hereafter, as the principles of the American system forms one of the strong pillars necessary to the support of every free government.

Respectfully, yours,
SAM'L HURLBUT, Jr.

THE IN-AND-IN SYSTEM OF BREEDING.

["The in-and-in" system of breeding is still the subject of discussion in English agricultural publications. In the November number of the Farmer's Magazine, the Revd. Henry Berry maintains the doctrine of *crossing*, against a writer under the signature L. who belongs, it seems to the "*in-and-in*" faction.

The whole correspondence is not before us, and for the present we content ourselves with the following extract from Mr. Berry's third letter; and we prefer it the more, that it relates to *sheep* husbandry, on which we shall bestow more particular attention in the course of the current year, under the supposition that the influence of the new tariff will be such as to induce farmers to desire every information on that branch of business.]

"I was about to enter on a calculation which would show your correspondent how little breeding *in-and-in* would be necessary in a numerous flock of sheep during a period of thirty years, and thus convince him that the excellence of Mr. Robinson's and Mr. Barford's sheep does not prove what he wishes to establish, when I accidentally met with a statement so much in point, I cannot refrain from giving it at some length. It is extracted from '*The Practical Grazier*,' a very useful work, written by Mr. Andrew Henderson, of Montrose: 'My father,' says Mr. Henderson, 'was a strenuous advocate for Mr. Bakewell's favourite sheep, and was at considerable expense in establishing such a stock upon a large scale; he continued having tups yearly for some time from Mr. Culley, or some of his brethren in trade, possessing such good qualities in which he conceived his own to be deficient. This was persevered in until his own tups seemed equal to those he was in the habit of hiring. He then contented himself with breeding from his own, being satisfied that he possessed all the necessary requisites; but in the course of about eight or nine years his stock began to degenerate by the carcass and fleece falling off much in weight, especially the latter, the staple of which, particularly on the back of the sheep, became similar to that of a lamb one month old, and their bellies became entirely bare. Being at a show of tups at Malton, Yorkshire, I purchased a tup at an extravagant price; he seemed to be a cross between the Leicester and Yorkshire breed; he was by no means fine, but had a degree of roughness about him, viz. of mutton and wool, which my father's stock then wanted. On the arrival of the tup, he did not exactly relish his appearance, but very soon became reconciled to him after seeing his offspring. One cross put the stock as it were to rights, and then the system of breeding from his own stock commenced again. At my father's decease I became tenant of his farm, and proprietor of the stock, &c.; but in the course of five or six years the stock began to fall off as above. I then purchased a true Teeswater tup, which was much rougher than the former one; indeed he had no claims to beauty, except the weight of fleece and carcass. This cross, however, succeeded well, and soon put me in possession of a stock which gave the highest satisfaction in every respect. I have repeatedly observed other flocks of sheep fall off in a similar manner to that already described, which I am convinced proceeded from the same cause, owing to the proprietors being too strong advocates for Mr. Bakewell's system to adulterate or pollute their fine breeds with either the Teeswater or Yorkshire blood: however, had they benefited as much by the pollution as I did, they would soon have become converts. It may be observed that my father's stock did not begin visibly to degenerate until the expiration of eight or nine years; neither did mine till the end of the fifth or sixth year,* which may be accounted for in the following manner: The system pursued was always to keep entire about six male lambs (more or less, as the number of ewes might require,) from the best ewes, sometimes by the same sire, while at other times by different ones. Out of these six tups, three of the smallest and finest bred ones, with less wool, were coupled with the strongest and coarsest of the ewes with heavy fleeces; while the three strongest and coarsest of the tups with heavy fleeces were coupled with the smallest and best bred ewes of least wool, mothers excepted.

'This degree of crossing kept the stock in a progressive state of improvement for a much longer time than if only one or more tups of a similar quality had been kept, for the fewer the number of tups kept, they must of necessity sooner be coupled with their own offspring; for instance, allow a tup to be put to ewes when two years old; five months thereafter his offspring appears, which when two years old, will be fit for propagation: consequently, it must either be commenced with their own sire, or their brother by the sire's side, whence the sire's blood is coming in close contact in the fourth year; whereas, when two tups or kinds of tups are kept, it would, according to the system pointed out, be eight years before the sire's own blood came in contact: hence it may be observed, that people may breed from their own stock for a great number of years, and not be breeding from the nearest affinity. If, therefore, my father preserved his stock from this for eight or nine years, and kept them in a progressive state of improvement, with six tups, why might not Mr. Bakewell do the same for twenty years, by having double or treble that number of tups?'

"Such is Mr. Henderson's evidence and reasoning, and it so completely answers the objection of "L." founded on Messrs. Robinson's and Barford's sheep, that any comment of mine would be superfluous."

[To the above, Mr. L., the anti-crossite, alias Mr. Finlay, answers in February last.]

In-and-in System of Breeding.

Sir,—As I observe that Mr. Berry has done me the honour to reply to the letter which I sent you in August last, under the signature of L., and as he objects to the facts brought forward in that letter in favour of the *in-and-in system*, I must beg leave again to trouble you with a few more remarks upon the same subject.

Mr. Berry objects to the Chillingham cattle, because, he says, they are in a state of nature, whereas the short-horns are in an unnatural state; but really I cannot see that there is much in this argument, for I think it is probable that if breeders in general had paid a little more attention to nature's laws, in the selection and treatment of the animals under their care, we should not have heard so frequently of the degeneracy of their stocks.

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*The reason why my stock began to fall off sooner than my father's, was owing to the perfect state in which it was, it being therefore thought unnecessary to keep two sets of tups managed in the manner already described; consequently, breeding from nearer affinities sooner commenced.

Our improved breeds of animals have been brought to their present state of perfection by selection, and by an abundant supply of food at all seasons of the year; and no doubt the same means must be used to keep them in that improved state. I am sorry that I cannot answer the questions put to me respecting Mr. Colling's cattle; but I may be allowed to remark, that the fact of the degeneracy of these cattle, after Mr. Colling's death, merely proves that they had got into less skilful hands, but by no means proves that Colling's system was a bad one. To show that animals bred *in and in* may be quite equal in constitution to those otherwise bred, I have only to refer to Mr. Hanckey Smith's late publication, "On Breeding for the Turf," where it will be seen that many of our best race-horses were bred very much *in and-in.*

Mr. Berry has brought forward several facts respecting pigs, [in some previous letter,] which would certainly go far to convince me that my opinions upon this subject were erroneous, were I not aware that pigs, as well as all other kinds of stock, have been bred *in-and-in* for a great many years, without any apparent degeneracy. It appears that Mr. Berry's friend in Gloucestershire bred his pigs *in and-in* for only six years, and in that short period they had degenerated so much, that they could not be brought to half the size of the original breed. Now, as a striking contrast to this, I shall bring forward the experience of our leading agriculturist in the north; I mean Captain Barclay, of Ury. Capt. B. has a very fine breed of pigs, which he has bred *in-and in* for 16 years; he has likewise a famous breed of setters that he has bred in the same way for the last 18 years, and he assured me that neither his pigs nor his dogs had degenerated in any respect whatever.—Were these pigs and dogs to get into other hands, they would probably degenerate fast enough, but surely that could not be brought forward as an argument against Captain Barclay's system of breeding.

With respect to fowls. As I believe Mr. Skellet is our highest authority in this department, I beg leave to give you his opinion upon the point in dispute. "'Tis doubtless," he says, "an absurd opinion to think any breed incestuous that springs from the brute creation; and of course we have bred from father and daughter, mother and son, and from brother and sister." He recommends breeding *in-and-in*, having practised it for at least fifteen years, and he says that we may go on breeding in the same blood, provided we breed from young stock.

And now with regard to Mr. Henderson's sheep. I think it is highly probable that Mr. Henderson was attempting to rear high bred Leicesters, on a soil and in a climate much inferior to what they had been accustomed to; and I am the more confirmed in this opinion, as it appears that Mr. Henderson avoided breeding close, yet as soon as he gave up crossing, his stock degenerated in a few years.

In "Hunt's Agricultural Memoirs," we are told that Mr. Meynell bred his fox hounds for nearly fifty years without a cross; and it is evident from what he told Sir John Sebright, that he was not afraid of close breeding. Culley (Bakewell's intimate friend,) tells us, that Bakewell's best stock were bred from the nearest affinities; and Mr. Barford informed me, that he had frequently bred from sheep very nearly related to each other. Taking all these facts, therefore, into consideration, I think I may with reason say, that I have some ground for doubting the correctness of Mr. Berry's opinion upon this subject; and likewise that the animals upon which Sir John Sebright tried his experiments, were either originally of bad constitution, or that, during the experiment, they were treated in an unfair manner.

W. W. Finlay.

Truro, near Glasgow, Dec. 10, 1827.

ON RAISING POTATOES.

Almost any land fit to cultivate will bear potatoes. Potatoes will grow where worms would destroy corn; they will grow well on new land, especially if we change the seed. It will do well to plant them in April, May or June. I will give a sketch of what I think I have learnt by experience. I think the best time to plant potatoes is on the wane of the moon. The distance between hills about three feet; the rows at a suitable distance to plough or harrow. The largest are best for seed; one as large as a goose egg will make two pieces. I take some care to divide the potato so as to give the seed end an equal share, which is the meanest part of the potato for seed. If they be long, (like the red potatoes,) I cut them crosswise, rejecting a small piece of the seed end, having three or four eyes in each piece; I put two pieces in each hill, placing them six or eight inches apart. I let them grow large enough to bear a decent hill, and then hoe them in the best manner. If I hoe them a second time, I like to hoe them sooner than is common after the first, for if I neglect it till the roots grow out on the ends of which the potatoes grow, there is danger of covering them too deep; or if I disturb the old hill, I am likely to injure the crop, and shall be likely to have some large and some small potatoes in the same hill—for if I raise the hill much at a late hoing, it will injure the first potatoes formed, and there will come out more shoots, and the potatoes will be late and small.—F.

[*Philadelphia paper.*

HORTICULTURE.

SILK.

[We have not yet done with extracts from the Manual, but those which are to come, will not be the worse for the delay which has occurred. In the mean time the following may convey useful hints.

Some ladies in Carolina sent to a member of Congress, distinguished for great talents and publick spirit, the following note, which he placed under cover to the Editor of the American Farmer, who, by the aid of a "practical cultivator" was enabled to make the answer which follows. The specimen of silk sent by these young ladies was the most brilliant and beautiful we ever beheld.]

Marden, May 3d, 1828.

The Misses W. send to Col. H. an offering of the first silk made from the silk worm eggs which he was so kind as to furnish them with, but it is not to be considered as the best which they hope to show him, as these eggs were hatched unseasonably, by the warm weather of February, and the succeeding cold injured the mulberry leaves and gave to the worms such irregular and often improper food, that their cocoons are imperfect, and their silk less than those which came out later and are now perfecting their work. Will Col. H. extend his patronage to this infant establishment, and in the leisure of the summer, make a few inquiries for its benefit? Whether the silk is to be prepared for the manufacturer by extracting the gum, as has been done in this specimen? How many cocoons must be put together to make one thread? and if it would not be best to send the cocoon to market in its first state? Those inquiries will only be necessary for another year, as the Misses W. have concluded only to take so much of the silk as will give them experience in the use of the reel,* and reserve the cocoons they have, for the eggs next spring. They have raised five thousand worms with so little trouble, that they propose to attempt a million next year, and so put fully and at once to the test, the advantages of the experiment.

ANSWER.

Baltimore, 21st May, 1828.

The silk is generally furnished to the manufacturer in a raw state; that is, reeled, but the gum not boiled out. Many kinds of silk goods require the retention of the gum, or a portion of it; while, at the same time, it, the gum, supports the delicate fibre, and preserves it while subject to the handling of factors and the friction of transportation, in passing from the cultivator to the manufacturer.

With respect to the number of cocoons to be combined to form one thread, that depends on the kind of goods to be manufactured. The best cocoons are generally reeled into eight cocoon threads, and the manufacturer doubles these to suit his purpose. Eight, twelve, sixteen and twenty cocoon threads are the most usual sizes of raw silk, the lower numbers being adapted to the finest goods and the higher to the coarse, and to sewing silk. Skill in reeling adds greatly to the value of raw silk—that which is uneven and carelessly reeled, being worth only from three to four dollars a pound; while that evenly and carefully reeled is worth *four to six dollars* a pound. This, therefore, is more worthy of attention than the number of fibres in a thread.

Relative to sending cocoons to market: this has been done, and in some countries it is the common practice. But it is very bad economy, and ought never to be done in this country. The production of cocoons occupies but a small portion of the year; and if they are sent to market, a most profitable employment for the rest of the year will be lost. A woman, with a little experience, and a small girl to assist her, can reel a pound of silk a day with ease, and the value of reeled raw silk being proportionably so much greater than that of cocoons, she will realize more in reeling the cocoons than in producing them The cocoons that would yield a pound of raw silk would not sell for more than two to three dollars—if the silk be well reeled, a pound is worth six dollars. She will therefore make *three dollars a day in reeling silk.*

MAGNOLIA MACROPHYLLA.

J. S. Skinner, Esq.

Sir—The magnolia macrophylla, one of the most magnificent of our native trees, is now in full bloom at the nurseries of D. & C. Landreth, near Philadelphia, and is so truly worthy of notice that I cannot refrain from attempting a description of it for insertion in your columns. The specimen, to which I more particularly refer (for their nurseries contain several of considerable size,) is estimated at upwards of thirty feet in height, and measures three feet above the ground, and eight inches in diameter. The leaves, when fully grown, at which state they do not arrive before July, are generally, foot stalk included, from twenty-four to thirty-five inches in length, and eight to ten in breadth. The upper surface is smooth, of a light green colour—the under glaucous, form a coating of pubescent, and marked with prominent veins, alternately proceeding from the mid-rib—and are invariably arranged in clusters of four, or more, near the extremity of the branches.

As respects the flower, it is difficult to give a desrription calculated to convey an adequate idea of its majesty. Mr. Nuttall, in his "Genera of N. A. Plants" states it to be the largest flower of any other American plant. In the nurseries herein referred to, they generally measure eight inches in length, and when fully expanded, sixteen inches in diameter, giving a circumference of nearly four feet. It is composed of but six petals, white, or slightly inclining to cream colour. The three inner ones, marked near the ball, with a purple spot of about an inch square—forming a remarkable contrast with (this excepted) its unsullied purity.

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* We have caused an engraving of a reel to be made and will give it in an early number.

Let the reader figure to himself a tree of the size here named, with clusters of immense leaves, hanging pendant or horizontally, and waving in the air like vast two-coloured wings—the extremity of each branch, crowned with a flower of a size to be *individually* conspicuous at a distance of two or three hundred yards; and he has but a faint idea of the tree attempted to be described. The contracted localities in which this tree is found growing indigenously, has been remarked by all the botanists who have traversed our continent.—Mr. Nuttall says, he first observed it near the banks of Cumberland river, Tenn. but of small size. Michaux observes in his "North American Sylva," 3d half vol. page 26. "In the month of June, 1789, in the first journey made by my father from Charleston to the mountains of North Carolina, I accompanied him, and discovered this tree which he immediately judged to be a new species of magnolia. The spot on which we found this magnificent vegetable is in North Carolina, ten miles south of Lincolnton, and two hundred and fifty miles from Charleston. Our extensive researches in quest of it in the upper part of the Southern states, and those subsequently made by several English botanists, east of the Alleghanies, which were alike unsuccessful, sufficiently prove that it is extremely rare between the mountains and the sea. West of the range in Tennessee, it is more common; but even here only a few trees are found together at intervals of forty or fifty miles, as I had an opportunity of observing during my journey in the western states in 1803."

It is now many years since it was added to the collection of the Messrs. Landreth, and is found perfectly hardy; the youngest plants enduring the severest frost uninjured—easily cultivated, and thriving readily in most situations. It is, therefore, much to be regretted it yet remains to be generally introduced.

The changes wrought on many vegetables by careful cultivation and attention is too generally known to be necessary to repeat; and the present case is an instance of it worthy of remark. Michaux states that in its native soil, "it does not exceed thirty-five feet in height and four or five inches in diameter." The estimate of the height of the specimen here spoken of is believed to be pretty accurate, and should no accident interfere, it will certainly attain a much larger size, the shoots of each year being strong and vigorous. The diameter of the tree is from actual measurement. The flowers he also states "when fully blown are sometimes eight or nine inches in diameter;" and a size but about one half which they arrive at in the nurseries herein referred to. D.

Philadelphia Co. June, 1828.

Register of five or six days of Death to Fruit in Kentucky.

Dear Sir, *Near Shellyville, Ky. April* 4, 1828.

Our February seemed to promise us an unusually early spring. Our winter afforded no ice to put up. The middle of March our peach trees had fully blown half their bloom; two or three heavy white frosts did them no injury—about the 20th of that month, hard freezing after a cold wind, destroyed all the fruit fully blown—since which time the bloom not then fully out, has put forth, and a plentiful crop of peaches was yet anticipated. This morning the ground is fully covered with snow—the sun rose clear, but patches of clouds occasionally obscured it; this latter circumstance, I hope, will save a part of the fruit as the freeze will not so suddenly be extracted. Early pears are the size of an English pea, the blossom end generally pointing upwards, is filled with snow; the part immediately in contact with the bloom, a clear ice; the snow under foot crackles like sleet—the day closed cloudy, with a raw northwestern wind—the snow entirely melted, except to the north and west of fences or buildings.

April 5, 6 *o'clock, A. M.*

A heavy atmosphere and uniform cloud hangs in all directions. The piony lies prostrate on the earth. The lilach limbs of this spring's growth hang like the weeping willow. From shortly after 6 until 8 o'clock, it snowed a kind of frost, which covered the earth. The sun now seemed as if about to break out; the air became more mild; large flakes of snow came profusely down; the eves of the houses commenced dripping; at about ten the snow ceased, icicles on the eves four or five inches long; clouds broke off in irregular banks, and the sun occasionally appeared for a few minutes. It continued moderate until twelve o'clock, at which time a brisk north western wind brought another snow storm; lasted a short time. The sun at no one time shone out fifteen minutes. It went down with heavy deep blue or purple clouds to north and west. At nine o'clock, not a cloud was to be seen; the stars all bright.

April 6.

Ground hard frozen—all vegetation hanging to the south east. Between six and seven, A. M. a slight fall of snow. 8 o clock, no sun yet; irregular clouds; north western breeze, raw as December. 12 o'clock, the sun has peeped from behind the clouds occasionally—there is now another sprinkle of snow, and a keen western breeze. From this until sundown, blustering winds, and but few intervals of sunshine. About nine at night, an entire clear sky. This evening a few peaches still living.

7th. Sun arose behind a cloud—about 7 o'clock, shone out dimly; flying clouds, and windy. Ground frozen, and ice on the branches. This day a warm sun, white patches of clouds, and a brisk wind—peaches all appear killed, and some of the leaves of the peach trees frosted.

8th. A large white frost this morning—sun rose clear—warm sun all day.

9th. Light frost—warm sun all day—some wind.

10th. Warm and cloudy, with wind. Lilach bushes mostly killed to the north west; the bloom to the south east yet living. Pionys have risen from the ground. The younger pear trees to the north west, killed: the earlier pears not as much injured as later: those which had shed the blossom leaves, have many of them, escaped*—those with the blossom leaves on mostly killed. A warm clear sun on the 5th or 6th must have killed every kind of fruit. A Subscriber.

LARGE BEET.

Mr. Skinner, *Camden Co. N. C. June* 6, 1828.

I have the pleasure of informing you that my father has a beet growing in his garden, which, at this time, measures 33¾ inches in circumference, and appears to be growing very fast at this time, &c.

Sir, I am yours, &c.
N. K. KELLUM.

THE CANADIAN THISTLES.

These sturdy warriors with their helmets of red and their spears of green, sallying forth from the regions of the north, a long time since invaded the more hospitable fields of New England. Advancing by irregular marches their posts are now scattered over a wide extent, and their warfare with the husbandman waged with obstinacy. A proposition recently made in the Legislature of Massachusetts, for their extermination, may be regarded as a declaration of hostilities against these dangerous enemies of cultivation. It has been moved to require every farmer to mow away the serried ranks of the thistles, before certain seasons of the year. The plant, possessing a vigor of constitution and power of vitality which survives almost all hardships, is not easily subdued by this process. It almost realizes the poetic fable of the monster whose heads were succeeded by a fresh addition as soon as cut away. It is said however that if mowed in the time intervening between the flowering season and the time of seeds, the waters, penetrating the hollow stalk, will decay the root, and finally purge the fields of the noxious weeds, which impede the progress of cultivation and deprive the farmer of so much of the reward of his toil.

Another weed which requires suppression by act of the legislature or otherwise, is the great daisy, or white weed; which spreads like a carpet over the grasses. The plough and the hoe by dividing its roots and separating its fibres, usually multiply instead of destroying the plants. The most effectual mode of extermination is said to be by increasing the fertility of the soil, so as to invigorate the other plants and change the sterile character in which it so delights.

INTERNAL IMPROVEMENT.

CANAL STOCKS IN ENGLAND.

We have met, in a late number of Niles' Register, with the following table, showing the value of Canal stocks in England. It is extracted by the Register from the Trade List of the 11th March last. The Trade List, it is said, is published weekly by an Assistant Clerk of the bills of Entry of the British Customs, and may be deemed to have an official sanction.

Names of Canals.	Original cost of each share.	Present price of each share.	Price of each share in 1822.	Dividend on each share.		Dividend in 1822.	No. of shares.	Average cost.	
	l.	*l.*	*l.*	*l.*	s.	*l.*		*l.*	s.
Barnesley	160	300		13			5720		
Birmingham	17½	203	565	12	10	20	4000		
Carlisle	50	490					1600	21	10
Chesterfield	100	150	120	8		8	1500		
Coventry	100	1200	999	44		44	500		
Cromford	100	400		19			460		
Derby	100	150		7	10		600	110	
Erwash	100	1400	1000	72		58	231		
Forth and Clyde	100	570		25			1207	406	16
Glamorganshire	100	250		13	12		600	172	13
Grand Junction	100	307	218	13		9	11600		
Grantham	150	215		9			749	150	
Leeds & Liv'p'l.	100	395	278	16		10	2897		
Leicester	100	325	260	17		10	540	140	
Loughborough	100	4000	2400	200		119	70	142	17
Milton Mowbray	100	240	170	11		8½	250		
Mersey & Erwell	100	825	650	35		30	500		
Monmouthshire	100	225		10			2409	100	
Neath	100	350		15			247	107	10
Nottingham	150	290		12			500		
Oxford	100	670	640	32		32	1786		
Shrewsbury	125	210		10			500		
Shropshire	125	135		7			500		
Somerset coal	50	170		10			800		
Stafford & Worcester	140	800	642	40		40	700	140	
Stourbridge	145	220		12			300		
Stroudwater	150	450		28			200		
Swansea	100	280		12	10		533		
Trent & Mersey	100	820	900	37	10	75	1300		
Warwick & Birmingham	100	265	210	12		11	1000		
Warwick & Napton	100	205	285	12		10	930		
Wyrley and Essington	125	160		6			800		

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* All the pears have withered and fallen off. Peaches all killed. Apples, in abundance, living.
May 27th.

At a time when the subject of canals engages so much of the public attention in this country, the foregoing statement cannot but be interesting and encouraging. The value of canal stock, wherever the work may be, must depend on the tolls that they are allowed to charge, and on their having full employment. The canals which are constructing to communicate immediately with this city, have a right to exact as high tolls, we are informed, as are taken on the English canals; and there seems to be no doubt that the inexhaustible body of coal with which our canals, now executing, are connected, and the great supply of that article which this market will require, for the transportation of coal alone, independent of other articles, will afford the canals full employment. Why then should not our canals be as valuable as those of Great Britain?—one of which, the Loughborough, it will be seen by the above table, is at four thousand per cent. and has risen sixteen hundred per cent. within the last six years. [*N. Y. paper.*

LADIES' DEPARTMENT.

DEATH.

The following poetical article has a simplicity and beauty of language, which cannot fail to please the young mind, and is so striking and happy in its illustration of an important sentiment, that its influence cannot fail to be salutary.

Mother, what is Death?

"Mother, how still the baby lies—
I cannot hear his breath;
I cannot see his laughing eyes—
They tell me this is death.

My little work I thought to bring,
And sit down by his bed,
And pleasantly I tried to sing:
They hushed me—he is dead.

They say that he again will rise,
More beautiful than now;
That God will bless him in the skies—
Oh, mother, tell me how?"

"Daughter, do you remember dear,
The cold dark thing you brought,
And laid upon the casement here,
A wither'd worm, you thought.

I told you that Almighty power
Could break the withered shell,
And show you in a future hour
Something would please you well.

Look at the chrysalis, my love,
An empty shell it lies;
Now raise your wondering glance above,
To where yon insect flies!"

"Oh, yes, mamma! how very gay
Its wings of starry gold—
And see! it lightly flies away
Beyond my gentle hold!

Oh, mother, now I know full well—
If God that worm can change,
And draw it from this broken cell,
On golden wings to range—

How beautiful will brother be,
When God shall give him wings,
Above this dying world to flee,
And live with heavenly things."

Ornamental Flowers.

In reviewing a treatise on the cultivation of ornamental flowers, by Roland Green, of Boston, the Literary Gazette has the following remarks:—

We are pleased with any thing which may attract the attention of our citizens, especially the female part of them, to the delightful science of Floriculture. For the humble in life it affords a cheap and pleasant recreation, and for the rich, what bestowal of their abundant leisure can ensure a greater portion of real epicurean enjoyment than the cultivation of beautiful plants? It is alike a source of pleasure to youth and to age. The happiest old man we ever met with was the superintendent of the Liverpool Conservatories. He had lived for a long life among flowers and verdant plants, and in his age was as flourishing as the greenest of his charge. With a beautiful enthusiasm, the old man bent fondly over the opening bud, or walking proudly among the shapely and blooming people of his little paradise, as a prince amid his children and vassals, and certainly no conqueror ever bore his trophies with more triumph, than he did the jewel presented to him by Alexander of Russia, in token of his bloodless conquests over the vegetable kingdom; nor is this learned and venerable gentleman, under whose care the garden of Liverpool has obtained a superiority over all others in England, alone in the love of floriculture. The most eminent philosophers and poets have not disdained the humble lessons and simple delights of the flower garden; and we do believe that the progress of pure taste and true refinement is in no way more distinctly marked than by the cherishing of nature's beauties. For ourselves, and we know we are not singular in that respect, whenever we pass a dwelling, the windows of which are glowing with flower vases, we "desire it more acquaintance" and set it down as the abode of "good people." We do not believe that disorder or evil passions can prevail in a household where a love for the quiet pleasures of floriculture is evinced, and have no doubt that the presence of these fair and innocent things of nature's loveliness has a deep and salutary effect on the human character.

Children's Shoes.

Children's shoes ought to be made large and easy. Their feet are rapidly expanding; consequently shoes which at present will just fit, will pinch in a month. Hence are produced doubling of the toes, painful corns, curving of the nails into the quick, and often headache and general disorder. Shoes for daily wear should never be thin; such shoes do not protect the feet in walking; and instead of encouraging a firm, manly step, give rise to a timid, bobbling, gait which is extremely uncouth.

[*Robertson on the Management of Children.*

SPORTING OLIO.

THOROUGH-BLOODED HORSES.

J. S. Skinner, Esq. *Philadelphia, June 2, 1828.*

Sir,—As the owner and breeder of thorough-blooded horses, I feel much indebted to the author of the "Annals of the Turf," for the very valuable information he has furnished, from time to time, for the American Farmer, in relation to the pedigrees of celebrated horses, breeding, managing them, &c. If his example was followed by gentlemen who possess authentic information on the subject of pedigrees, the American Farmer would in a short time afford ample materials for the formation of a Stud Book—a work which has been, and now is looked for anxiously by sportsmen and breeders of fine horses. You at one time gave assurance that the public would be gratified by the publication of an American stud book and racing calendar. To what cause is the failure to be attributed?

I send you annexed the pedigrees, and performances, in part, on the turf, of *Alexander* and *Archibald*, two fine horses, that were purchased in England by Mr. William Smalley, of Spotsylvania, Va. They were selected by him with great care, as he states, and were landed at Norfolk, Va. in April, 1806.

ALEXANDER

Was bred by Sir Watkin William Wynne, Bt.; was got by Lord Grosvenor's *old Alexander*, (son of Eclipse,) his dam by Sweetbriar; grandam by King Herod; great grandam Monimia by Matchem; g. g. g. dam by Alcides, &c. *Old Alexander* was the most nervous and beautiful son of Eclipse; his dam Grecian Princess, sister to Grecian by Forrester; her dam by the Coalition colt, son of the Godolphin Arabian, &c.

Alexander, whilst the property of Sir W. W. Wynne, won a sweepstakes of 60 guineas at Preston, carrying 168 pounds, and the cup at Oswastry, value 50 guineas. At Preston, he beat the famous horse Cheshire Cheese, by Sir Peter. He won the great Barrenton stakes of 25 guineas each, seven subscribers, carrying 168 lbs., and many matches. He had the best spirit and action, and was the pleasantest horse to ride I ever mounted.

Wm. Smalley.

ARCHIBALD

Was bred by the Duke of Hamilton, of whom I purchased him, immediately after he broke down in his race at York, August meeting, for the King's 100 guineas, four miles. He was got by Walnut, (son of Highflyer,) his dam the bay Javelin Mare; her dam Young Flora (sister to Spadille) by Highflyer; her dam Flora by Squirrel.

Walnut was by Highflyer; his dam Maiden (sister to Pumpkin) by Matchem; grandam Mr. Pratt's celebrated old Squirt Mare.

Archibald's first race was at Middleham, on the 16th of May, 1804, for three years old, carrying 107 pounds, 2 miles—60 guineas, which he won easily. His second was on the 15th of October, at Ayre, in Scotland, for a purse of 100 guineas each, 5 subscribers, 8 stone, 2 miles. This race he won in high style. His third race was at York spring meeting, in 1805—he came in third. His fourth race was at York August meeting, for the King's 100 guineas, 4 miles, when he broke down, coming in foremost within the distance post. Wm. Smalley.

Mr. Smalley states that both horses were about 16 hands high, and of great power and undaunted spirit.

As there is no American book, or publication, other than the American Farmer, to which gentlemen can refer for the pedigrees of imported and American bred horses, (excepting only, I believe, a small book recently published, entitled the "Gentleman's New Pocket Farrier," the compiler of which has made pretty free with the Farmer, by copying and appending to his work the "Annals of the Turf") it is very important that doubtful and contradictory statements of pedigrees, should not be inserted in the American Farmer; some of the latter character I have noticed occasionally, though not frequently. I would have pointed out to you the discrepancies at the moment, had I not believed they would have been detected and corrected, by some gentleman more competent to the task than myself—for instance, the "Author of the Annals of the Turf."

I take this occasion to inquire if the gentleman who dates his communiertion to you of the 19th of May, at Barnum's hotel, over the signature of G. D (No. 10 of the Farmer,) has not fallen into an error when he says, "I do not know when Wildair was imported into this country, but I recollect seeing a colt (Col. J. Sims' Wildair, very large and elegant,) got by him, win a purse at Upper Marlborough, in 1768."

I have long been under the impression that Sims' Wildair was gotten by old Fearnought, and was his best son. The same writer remarks, that the "stock" of the imported Wildair "was not capital." We to the north have been in the habit of thinking otherwise. G. D. has also said that "Herod, although a good racer and celebrated stallion, was inferior to many—he was the hindmost of six that ran for a purse in 1766, which was won by Bay Malton in seven minutes forty three seconds."

I will give you an extract from the Sportsman's Repository, by the author of "British Field Sports," published in 1826, to show in what estimation King Herod was held, where he was best known as a racer and stallion. In the latter capacity he was not excelled, if indeed equalled, by any English bred horse. Herod was withdrawn from the turf in consequence of having burst a blood vessel of the head, in the race alluded to by your correspondent, with Bay Malton and others.

"King Herod, a bay horse about fifteen hands three inches high, of great substance, length and power, and fine figure, was bred by old Duke William, and foaled in 1758. He was got by Tartar out of Cypron. There was another Tartar got by Blaze, but Tartar the sire of King Herod, was got by Croft's Partner, one of our most famous racers and stallions, out of Meliora by Fox, and she was bred from a line of stout and true runners. Partner, grandsire of King Herod, was foaled in 1718; he was a chestnut horse, of great power, exquisite symmetry and beauty, and immediately succeeded Flying Childers, as the best horse at Newmarket, giving weight to, and beating those of the highest repute, over the course. He was got by Jig, son of the famous Byerley Turk, his pedigree through a list of highly reputed progenitors, concluding with the well known Old Vintner mare. Partner died in 1747, aged twenty-nine. Cypron, King Herod's dam, was got by that powerful and capital racer and stallion Blaze, a son of Flying Childers, and sire of Sampson, Scrub and others; that Blaze, of which the Yorkshiremen affirmed, that even half-bred mares would breed racers by him—out of Sir William St. Quintin's Selima, a black mare and true runner, got by the Bethell Arabian, and boasting in her lineage, Champion, the Darley Arabian, and Old Merlin. King Herod's pedigree consists of the oldest and purest blood, and in order to obtain a capital racer, a real *kill-devil*, rara avis upon our modern sod, chuse mares with the greatest possible portion of Herod blood, deep in the girth, long and full in the fore arm and thigh, short in the leg, standing clear and even upon the feet, wide and spreading in the hinder quarters.

"Herod, like Childers and Eclipse, did not start upon the course, until five years old, whence probably, a certain argument takes something. He never ran any where but at Newmarket, Ascot Heath, and York, and always over the course, or four miles, stoutness or game, and ability to carry weight, being his play. He ran five times for a thousand guineas each race, and won three of them. His losing the two, might be on account of reasons which now and then occur upon the turf. The last race he won was against Ascham, a curious one, from the circumstance of two aged horses carrying feathers, five stone seven, and six stone. He had previously burst a blood vessel in his head, whilst running the last mile over York, for the subscription purse against Bay Malton and others. He won several matches for five hundred guineas, and a sweepstake of three hundred guineas, nine subscribers.

"The fame of this racer as a stallion, in the Turf Register, is truly splendid. In nineteen years, namely, from 1771 to 1789, four hundred and ninety-seven of his sons and daughters, won for their proprietors, in plates, matches, and sweepstakes, the sum of two hundred and one thousand, five hundred and five pounds, nine shillings, exclusive of some thousands won between 1774 and 1786. Herod was the sire of the celebrated Highflyer, bred by Sir Charles Bunbury, which was never beaten; and which, like his sire, had a great stride, and game was his best. Herod also got some of the speediest horses of their day, as, Woodpecker, Bourdeaux, Anvil, Hammer, Sting, Adamant, Plunder, Quicksand, Rantipole, Whipcord, and many others. Tuberose Guilford, and Latona, were rare examples of the family stoutness, and Laburnum was an excellent and useful racer. The list of brood mares got by Herod is extensive indeed. We know but one restive horse of Herod's get: Mr. Vernon's Prince, which we recollect seeing ridden at Newmarket, in a prickly bridle. King Herod first covered, the property of Sir John Moore, Bart. at ten guineas, and ten shillings the groom. In 1774 his price rose to twenty-five guineas, and ten shillings, at which it remained till his death, which happened May 12, 1780, in the 22d year of his age."

Yours, with much respect, J.

P. S. I think your correspondent is in error in stating, that Mr. Gitting's gray horse (Chesapeake) was got by Sweeper. I think, at least have been informed, that he was got by Badger.

[Our correspondent was not mistaken, but the confusion shews how mischievous is the contemptible practice of calling one horse after another—Sims's Wildair, won the second day colts purse, at the same races (1768) that Figure beat Selim the four mile heats; the first day. Sims's Wildair was by imported Wildair, and imported Wildair, *not* by Fearnought, (as stated in the American Farmer, vol. 10, page 63,) but by Old Cade. The following is a literal copy of an advertisement lying before us in a volume of the Maryland Gazette, at Annapolis, from 1776 to 1781.]

"WILDAIR—Stands this season at the head of West River, and will cover mares at $300 each, and ten dollars the groom. The money to be paid before the horse is led out of the stable. He is a dark bay, upwards of fifteen hands and an half high, he was got by Mr. Delancey's imported horse Wildair, his dam by Ariel, his grandam by Othello, his great grandam a Barb, his sire was got by Old Cade, his grand sire by the Godolphin Arabian.

"N. B. Pasturage at ten dollars a week, but I will not be answerable for any that may be lost.

JOHN JOHNS."

RINALDO.

[Authentic pedigree of that very superior and valuable thorough bred horse Rinaldo, bred by the Hon. John Randolph, of Roanoke, and now standing at Wilmington, Delaware.]

Bay horse Rinaldo, bred by J. R. of Roanoke, foaled in 1821, on the 31st of March, at Roanoke. He was got by Sir Archy, his dam (also bred by Mr. R.) Miss Ryland by Gracchus—his grand dam, *Duette*, by Silvertail,[*] out of Vanity, (the grand dam of Gracchus)—She was got by Old Celer, [the best son of Old Janus, out of the famous Brandon mare.] Vanity's dam, Morăttne was got by Mark Anthony, [the best son of Old Partner, whether as a racer, or stallion]—her dam was got by Old Jolly Roger, and her grand dam by the imported horse Silver Eye. A true pedigree.

Witness, JOHN RANDOLPH, of Roanoke.

May 21, 1828.

MISCELLANEOUS.

CHINESE METHOD OF FATTENING FISH.

The Chinese are celebrated for their commercial acumen, indefatigable industry, and natural adroitness in making the most of every gift of nature bestowed on their fertile country. Useful as well as ornamental vegetables engross their every care; and animals which are the most profitably reared, and which yield the greatest quantity of rich and savoury food, are preferred by them for supplying their larders and stews. Their *hortus dietetica* would form a considerable list; and though they do not use such a variety of butcher's meat and fowl as Europeans do, yet, in the articles of pork, geese and ducks, they surpass; in the use of fish they equal us; and in their domestication and management of them, they excel all other nations.

When a pond is made for this purpose, and filled with water, the owner goes to market, and buys as many young store-fish as his pond can conveniently hold; this he can easily do, as almost all their fish are brought to market alive. Placed in the stew, they are regularly fed morning and evening, or as often as the feeder finds it necessary; their food is chiefly boiled rice, to which is added the blood of any animals they may kill, wash from their stewing pots and dishes, &c.—indeed, any animal offal or vegetable matter which the fish will eat. It is said they also use some oleaceous medicament in the food, to make the fish more voracious, in order to accelerate their fattening; but of this the writer could obtain no authentic account. Fish so fed and treated, advance in size rapidly, though not to any great weight; as the kind (a species of perch) which came under observation, never arrive at much more than a pound avoirdupois; but from the length of three or four inches when first put in, they grow from eight to nine in a few months, and are then marketable. Draughts from the pond are then occasionally made; the largest are first taken off, and conveyed in large shallow tubs of water to market; if sold, well; if not, they are brought back, and replaced in the stew, until they can be disposed of. This business of fish-feeding is so managed, that the stock are all fattened off about the time the water is most wanted for the garden crops. The pond is then cleaned out, the mud carefully saved, or spread as manure,—again filled with water, stocked with young fry, and fed as before. An intelligent Chinaman, from whom the writer had the above detail, and who shewed him as much of the process as could be seen during a residence of three months, declared, as his belief, that a spot of ground, containing from twenty to thirty square yards, would yield a greater annual profit as a stew, than it would in any other way to which it could possibly be applied. That fish may be tamed, suffer themselves to be caressed and even raised out of their natural element by the hand, has been long known to naturalists; witness the famous old carp formerly in the pond of some religious house at Chantilly, in France, with many other instances on record. But it is probable no people has carried the art of stew-feeding fish, and practising it as a profitable concern, to such length, as is done by the Chinese at this day. [*Quarterly Journal of Science.*

LIVERWORT.

The following is a copy of a letter from Dr Physick, of Philadelphia, to Dr. G. B. Taylor, of this City, in answer to an inquiry by the latter, as to the opinion of Dr. P. upon the medical virtues of the Liverwort.

Philadelphia, May 3, 1828.

Dear Sir:—My experience in the use of the Liverwort is so very limited, that I do not feel authorized to offer an opinion respecting its *medical*

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[*] Silvertail was got by the imported horse Clockfast, which was got by Lord Grosvenor's famous Gimcrack, [sire of Old Medley,] out of Miss Ingram by Regulus, [see Stud Book.] Silvertail's dam Young Primrose, was got by Wormley's King Herod, [son of Baylor's Fearnought out of Braxton's Kitty Fisher,] her dam the noted mare Primrose, the property of Dr. Hamilton of Maryland, was got by Dove, [son of Young Cade.] *Her* dam, Stella by Othello, [by Crab out of Miss Slammerkin.] Her grand dam was Tasker's Selima, by the Godolphin Arabian.

powers. In the few instances in which I have consented to a trial of it, not the smallest benefit has resulted from its use. I am much pleased to find you so determined to resist quackery. In the present state of my information I should by no means depend on the supposed efficacy of the Liverwort as a preventive or cure of phthisis, because it might take the place of other more appropriate and efficacious remedies.

I remain, dear sir, very respectfully, your faithful servant, P. S. PHYSICK.

Geo. B. Taylor, M. D. [*Nat. Int.*

A correspondent of the National Intelligencer gives some interesting particulars of the *Hepatica Triloba*, or Liverwort, the valuable properties of which in pulmonary complaints, have so recently been discovered, and in many instances successfully tested. The plant, it appears, was cultivated in England, by Gerard, as long ago as the year 1596. There are two distinct varieties of the species—the one *obtusa*, "having the lobes of the leaves rounding, obtuse; the other *acuta*, having the lobes of the leaves acute." The former is found in forests, the latter on mountains.

Dr. Hereford has communicated another article on this subject, in the same paper. It is in reply to a writer in a late Eastern paper, who thinks that the Liverwort is useless in cases where the lungs have become so far diseased, as actually to discharge *pus.* This is controverted by Dr. H. who affirms that the medical virtues of this plant have been known to operate successfully, in many instances, even after that alarming symptom has appeared, and when extensive ulcerations of that organ must have existed. This is a most encouraging consideration, and one which should prompt the thousands of consumptives with which our country unfortunately abounds, to an immediate and persevering trial of this panacea. It is necessary that special caution be used in order to obtain the genuine plant—as mistakes not only prove fatal, but result in a loss of public confidence in the properties of an herb, which, when genuine, is of the highest value to afflicted man.

Mr. Skinner. *Hudson, N. Y. May 9th*, 1828.

Sir,—You will herewith receive a specimen of Liverwort that you wished some person to send you for a friend of yours in Virginia. This Liverwort has made great cures in this part of the state, in consumptions. T. E. BEEKMAN.

Chimney and barn swallows destroy legions of insects, but never attack the produce of the soil. Did they fail to make their appearance, our buildings and crops would be overrun with insects. These harmless birds amply repay us for sheltering them, and it is impolitic to destroy them.

CANINE BIOGRAPHY.

The almost incredible performances of the *Grecian Dog Apollo* at Peale's Museum having become a general topic of conversation amongst the curious of this city, we have been induced to make some inquiries relative to his origin—breed and education—for the gratification of our readers. He is now nearly six years old, and was bought when a pup of about seven months old from a sailor belonging to a vessel that had just arrived from Greece. He betrayed early symptoms of comprehension and recollection in so extraordinary a degree, that his master was induced to try to what perfection a dog might be brought by patience, gentleness and perseverance. The experiment was made in London. His hours of instruction were from twelve to two in the night, choosing this time for the great advantage resulting from silence, being able to make more progress in those two hours than in six during the bustle of business. His diet was strictly regular, but not stinted—*on no occasion beaten*—(severity tending to destroy the spirit and create a dislike to his performance) never allowed to associate with other dogs or sleep in the day time. This line of conduct was adopted for fifteen months, at the expiration of which time he was first exhibited in London, where his uncommon abilities created so much public curiosity that for a considerable time the rooms were literally crowded with admiring spectators, including most of the royal family, the foreign ambassadors and nobility, who have (with the editors of some of the first newspapers) invariably allowed him to surpass any thing of the kind they had ever witnessed. He was last June brought to New York, where he was immediately engaged from the high character in the European papers at $200 a week for five weeks at the American Museum. Three shares were then sold for $1350. [*Balt. Gaz.*

THE FARMER.

Baltimore, Friday, June 13, 1828.

☞-During the past week the weather has continued, in this neighbourhood, to be showery and warm, and favourable, beyond any season we recollect, to the growth of vegetables, oats, rye, wheat, grass, &c. For Indian corn there has, perhaps, not been enough of hot sun. It will be fortunate if the wheat escape the rust. From Monocacy Manor, in Frederick county, one of the manors of the venerable Charles Carroll of Carrollton, a gentleman writes us, under date of June 10th, "I have been upon this estate for the last ten days, making a reconnoissance of the wheat crops, which are luxuriant beyond any thing of the kind I have ever seen upon one continued tract of such extent. I think I may aver with safety that the whole manor will average from 20 to 25 bushels to the acre.

John Hancock, a very superior horse, from the stud of the Hon. John Randolph, has been sent to the Editor of the American Farmer, and will stand this season, for a limited and small number of mares, at Mr. Tarman's tavern, on the Reisterstown road, at $10 *cash* each mare.

He is a capital grandson of Sir Archy, his sire Roanoke, Mr. Randolph's favorite horse, and was foaled 4th July, 1823—His dam Roanoka by Florizel, dam Cornelia by Chanticleer, Vanity by Celer, &c. Roanoke was got by Sir Archy out of Lady Bunbury, got by Trumpator, Theopha by Highflyer, Plaything by Matchem, Vixen by Regulus, &c.

☞-No news of importance from Europe since our last. The probability of war diminished.

☞ Tobacco, of common qualities, is not improving in price, but bright yellows are a little better. The sales, for months past, have not averaged $3, though some small crops have sold for that—two very large crops from Prince Georges, have been mentioned to us—one of Mr. Contee, of 300,000 weight, sold for $2 75 per hundred—one of Mr. W. Bowie, of about the same quantity, for $2 87½ cents round.

IMPLEMENTS OF HUSBANDRY.

The subscriber has on hand and offers for sale, a quantity of superior Grain Cradles, manufactured by David Little, of Gettysburg, Pennsylvania. Also, Mr. Little's celebrated patent Scythe Rifles, all of which will be warranted good. Likewise on hand, a full assortment of Gideon Davis' Patent Ploughs, Barshare and Coulter Ploughs, which he will warrant to be equal to any in the country. Steel lined and cast iron Cultivators, for the culture of corn and tobacco; Shovel and Substratum Ploughs and Harrows. Also, his patent Cylindrical Straw Cutter, which has never been equalled for its kind in any country; Brown's Vertical Wool Spinners, for family use, running six spindles, simple and efficient in its operation; Corn Shellers, Wheat Fans; patent spring Washing Machines; cast steel Axes, Mattocks, Grubbing Hoes and Picks, Shovels, Spades, &c. &c. And can furnish to his customers, Garden Seeds, raised by the Shakers of Berkshire county, Mass.

All the above articles will be sold on reasonable terms for cash. Communications by mail (*post paid,*) will receive prompt attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite the United Hotel.

P. S. Agents for the subscriber, where gentlemen can leave their orders.

Messrs. Jona. Alden, Philadelphia.
Barr, Auchincloss & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C. & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savannah, Geo.

FOR SALE.

Two full bred Mares, five and six years old—handsome bays, and of good pedigree, are offered for sale on moderate terms. Also an Exile Stallion, from a Virginia mare, five years old. For terms, and further particulars, apply to the Editor of the American Farmer. *June 13.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

The tobacco market continues steady, and but little, if any variation in prices since last week.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 4.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .87 *a* .92.—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85--Corn, .31 *a* .33—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .50 *a* .55—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .10 *a* .13—Alabama, .9 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, 21 *a* .21½—bbls. 22 *a* 22½—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—¾ quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—Herrings, No. 1, bbl. 2.50 *a* 2.75; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.25 *a* 5.50; No. 2, 2.25; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts., where every description of printing is neatly executed.

AGRICULTURE.

THE HORSE.

[We are very glad to find on our table, a work under the following title. It is the production of a connoisseur and a gentleman, and ought to be in every farmer's collection.

The extracts we make from it, will serve better, however, than any opinion of ours, to shew the character of the volume, and the appendix, consisting, together, of 300 pages.]

The Gentleman's New Pocket Farrier.

Comprising a general description of the noble and useful animal, the Horse; together with the quickest and simplest mode of fattening; necessary treatment while undergoing excessive fatigue, or on a journey; the construction and management of stables; different marks for ascertaining the age of a horse from three to nine years. Also, a concise account of the diseases to which the horse is subject; with such remedies as long experience has proved to be effectual—By Richard Mason, M. D., formerly of Surry county, Virginia—fourth edition, enlarged and improved. To which is added an Appendix, containing Observations and Receipes for the Cure of most of the common distempers incident to Horses, Oxen, Cows, Calves, Sheep, Lambs, Swine, Dogs, &c. &c.—selected from different authors. Also, Annals of the Turf, or Virginia Stud Book.

Saddle Horse.

When a horse is purchased for the saddle alone, it is to be presumed he must be clear of all defects, strike the fancy, entirely please the eye, and from his happy symmetry and due proportion of form, stand the second beauty in the world. When this is the case, he is seldom disposed of at too high a price. Amongst the great number of people in the United States, I am induced to believe, there are but few good judges of a horse calculated for the saddle. Indeed they are better informed upon almost any other subject that can be mentioned. Yet the Virginians have a large number of fine horses, and are accused of devoting too much attention to that beautiful animal. Among all the difficulties attending the affairs of common life, there is not, perhaps, a greater than that of choosing a beautiful, an elegant, or good horse. Nor will this appear strange, when we consider the number of circumstances that are to be taken into consideration, with regard to shape, size, movements; limbs, marks, eyes, colour, age, &c. &c.—which are so various that it would fill a volume to describe, and indeed the best judges are often obliged to content themselves with guessing at some things, unless they have sufficient time to make a thorough trial. If I were asked what were the two most beautiful objects in nature, I would answer, that woman, lovely woman, before whose charms the soul of man bows with reverence and submission, stands unparalleled; next to this matchless paragon, a beautiful horse displays nature in her highest polish and greatest perfection. His gay and cheerful appearance, proudly prancing and bounding, his elegance of shape, smoothness of limbs, polish of skin, due proportion of form, and gracefulness of action, united to a mild, soft, faithful and patient disposition, raise him far above the rest of the brute creation. I shall now proceed to lay down some rules, and to give some hints, for the examination of a horse previous to a purchase being made, to prevent the liberty of exaggeration, which is too frequently taken by dealers in those animals, and which too often terminates to the serious injury of the purchaser.

It is to be much lamented, that men who entertain a proper idea of honour, in all the common affairs of life, so soon as they become the owner of a horse, feel at liberty, without being sensible of doing violence to their morals, to knock off two or three years from his real age, and express themselves with apparent delight, of services, gaits and qualities, to which he never had any sort of claim or pretensions; carefully keeping a secret every vice and defect to which he is subject. I do not pretend to say this is the case with all who exchange or sell a horse—but that it has often occurred, no person will deny. If a fraud can be practiced at all, it is sufficient reason for the inexperienced and unsuspecting to be placed on their guard. When a horse is offered for sale, I would advise the purchaser to ask one question, viz: Is he in all respects perfectly sound? Should a cheat be practiced on you, an action would lie against the seller, and damages could be recoverable; but be your own judge, not permitting any declaration that may be made by the seller, to alter your opinion of form, age, condition, movements, action, &c. As the eyes of a horse are the most important organ, first let him undergo a strict examination, [in open day light;] ascertain his age, examine his figure and action, guarding yourself against being too much pleased or fascinated with the appearance of a new object; view his feet and legs; large ridges on the hoofs, or very flat feet, discover a horse to be subject to founder: large gouty legs, with enlarged tendons, indicate strains and other injuries. Examine his hind legs, with great attention just below the hock, and inside the hind knee: if there is any unnatural prominence, or knot, unlike the other knee, it wears the appearance of a spavin, which renders a horse of but little value. Splint, which appears on the inside of the fore legs, and wind-galls, upon the anceles, are unpleasant to the eye, but seldom produce serious lameness; they furnish plain proof that a horse has been serviceable, and are very seldom productive of any other injury than stiffness, as he advances in years. Ride yourself, for the purpose of trying his gaits and qualities—as a rider, accustomed to a horse by private signs, such as manner of riding, bearing on the bit, leaning forward or backward, holding the heels close to his sides, &c. can make a dull horse appear gay and spirited, a wild horse gentle, a stumbler clear footed; one that is blind appear to see, and a starting horse free from that great objection, &c. Before mounting him examine his knees, to discover if they are skinned, the hair off, or scarred: those are strong symptoms of his politeness to a fault. Ride with your bridle loose over any uneven ground: if he is in the habit of stumbling, he will very readily inform you—then approach some object offensive to the sight: if he appears much alarmed, stopping suddenly, and attempt to turn round, paying but little respect to the bearing of the bridle, you may judge he has long been in the habit of that bad practice. Ride him in all his different gaits, to ascertain if they are smooth, easy, and agreeable; move him about a mile, out and back, in fully half speed; frequently stopping him suddenly to try his wind, also if he is spavined. If his wind has been injured, he will blow unnaturally; making a loud wheezing noise, with great difficulty of breathing. While warm, ride him in cold water above the belly; after which let him cool fifteen or twenty minutes, and if he is spavined, and has received temporary relief, by applications of any kind, the disease will make its appearance so plain, that you will discover evident marks of lameness. The spavin is often relieved for a time; and in a few instances, has been permanently cured by blistering, bathing with double distilled spirits, &c. The brisk exercise, &c. is intended to bring on a return of its effects, in case the animal should have had temporary relief from that distressing disease.

Having given such hints as I am persuaded will lead to the discovery of any material defects in a horse about to be purchased, I shall now proceed to the description of a horse that I consider elegant and fit for the saddle.

In order that he may have just claim to beauty and elegance, his head must be small, thin, bony and tapering; his countenance lively and cheerful; his ears quick of action, high, erect, narrow, thin, and pointing together; his eyes large, round, full of black, sparkling with cheerfulness, yet hushing his agitating passions in order and obedience; his nostrils large and expanded, and when in motion, disclosing a deep red colour; his brow and forehead smooth, and not too flat; his nose somewhat rising, of good turn, and a little inclined to the roman shape; his neck long, thin, delicate and arched; forming a beautiful gradation from the breast and shoulders; his mane half the width of his neck, thin and smooth, his *shoulders high, tapering, and thrown well back* [this we should regard as of the first importance;] his breast plump, full, and of moderate width; his fore legs straight, flat, sinewy and thin; his arms large and muscular; his back short and not too much swayed for strength and durability, but pretty even and straight; his body rather round and swelling than flat, and of proportionable size; his flanks plump and full, and the last rib approaching near the hip bones; his hips and buttocks full, round and well covered with muscles; his chine broad; his tail well placed, and naturally or artificially elegant, which adds much to his figure and gay appearance; his thighs long, from the hip to the haunch bone large and bulging with muscles; his hocks broad, sinewy, bony and clear of puffs; his hind legs from the hocks short, bending a little, rather than straight, flat and sinewy; his pasterns of modern length, small and bony; his hoofs cupped, small, round and smooth; his hind parts not tucked, but of easy turn and graceful slope. When mounted, his appearance should be bold, lofty and majestic; his eyes shining with intrepidity and fire; his movements light and airy as a phantom, with a fairy step, that would scarcely break a dew drop; his actions smooth and graceful; his colour should suit the taste of the purchaser, though a mahogany bay is certainly the best colour; his marks large of irregular white, to light up the countenance; and at least *two white legs*,* which will add much to his beauty—though it must be acknowledged, that all parts of a horse that are white, are much more tender than any other colour. When a horse is rode by any person for you to judge of his gaits, you should have him moved towards you, from you, and finally by you; as you may have the opportunity of discovering if there is any turning in and out about his knees and anceles, before or behind, which is very objectionable. A well shaped horse will track as true, or his legs will follow each other in as direct a line, as the wheels of a well constructed carriage. For him to be considered a good riding horse, he should move with ease to himself and pass over the ground with great rapidity. Hard steps, short going, and great apparent labour, is offensive to the sight, unpleasant to the rider, and fatiguing to the horse himself. With respect to the colour of horses, people differ very widely; a black horse with white face and legs, a grey, or a mahogany bay with white marks, when well kept, are all shewy colours; but for actual service, experience has proved, that dark colours without any white feet are far preferable; for who ever recollects to have seen a black, sorrel or bay horse, with a bald face and four white legs, distinguish himself on the turf, in four mile heats? I am inclined to believe there is no first rate race horse, of that description, within the United States.

I have perhaps stated some facts relative to horse jockies, in a manner so plain and candid, as to draw from them their displeasure. My object is not to offend, but to instruct and be useful to those who want experience on the subject, for which this little book is designed.

To bring a Horse into Condition.

Not only should the purposes he is intended for be taken into account, but also his previous state. If he be taken up from grass with much flesh on him, it is evident that what is required is to remove the soft interstitial matter it may be supposed he has gained by green food, and to replace it by hard flesh; and also to produce a sleekness of coat and beauty of appearance. To accomplish these ends, the horse should be accustomed to clothing and the full heat of the stable by degrees only; and also by degrees only to the meditated change of food; which is best done by mashes. In two or three days a mild dose of physic may be given, during all which moderate exercise only should be allowed, as walking, but which may be continued two hours at a time. After the physic has set, begin to dress his coat, increase his exercise and his food, and accustom him to an increase of warmth. In four or five days time again mash him for two days, and give a second dose of physic, a very little stronger than the first.—After this, still further increase his warmth, his exercise, and his food, by which his belly will be taken up, his flesh will harden; and his coat will begin to fall. A third dose of physic, or urine balls, &c are only necessary in the training of hunters, &c and even in these, a gradual increase of exercise, rather long continued than violent, with proper food, will effect the end, if not so quickly, more beneficial to the animal. *To bring a lean horse into condition* a somewhat different plan should be pursued. If from grass, still mash him for a day or two, by no means stint him in his water, and with his mash let oats be also soaked. If oats be speared or malted, it will produce flesh sooner. But even here, give the horse moderate walking exercise, and if he be not too much reduced, add a mild dose of physic to prevent his heels flying, or his getting hide bound by the increased food; but if great emaciation forbid the physic, give him nightly an alterative. (*Vet Pharm* 129, *No* 1[*]) As his appearance improves, gradually harden his food and increase his exercise.

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* Here we differ decidedly with the author. We should not mind his having *one white* foot behind.

Founder.

The injury sustained by horses, called founder, is sometimes the effect of the cruelty of his master, and at other times brought on by injudicious treatment; but it is most frequently produced by carelessness, or a want of knowledge of the treatment necessary to those excellent animals on a journey.

Although the horse is endowed with the strength and powers of the lion, yet he seldom exerts either to the prejudice of his master. On the contrary, he shares with him in his labours, and seems to participate with him in his pleasures. Generous and persevering, he gives up his whole powers to the service of his master—and though bold and intrepid, he represses the natural fire and vivacity of his temper, and not only yields to the hand, but seems to consult the inclination of his rider.

But it must continue to be a matter of regret to every feeling mind, that these excellent qualities should be so often shamefully abused in the most unnecessary exertions; and the honest labours of this noble animal, thrown away in the ungrateful task of accomplishing the purposes of an unfeeling folly, or lavished in gratifying the expectations of an intemperate moment.

A horse may be foundered by excessive hard rides, permitting him to plunge deep into cold water, while hot and sweating, and drinking his fill of cold pond water, eating large quantities of new corn and fodder, and then briskly exercised; over feeding with bran alone whilst performing hard labour, drinking plentifully at every branch in travelling, feeding with more than a horse can eat after being half starved, violent exercise on a full belly, or not permitting a horse who has travelled in a hot sun all day, to cool thoroughly before he is given as much as he can eat, drink, &c &c.

Symptoms of a founder.—The symptoms that indicate an approaching founder, are so few and so common, that the most ignorant persons will rarely be mistaken. Great heat about the legs, pasterns and ears, a soreness in the feet, together with a stiffness so great in all his limbs, that the animal frequently refuses to move, unless force is used—his flanks and lower part of his belly draws up, his hide becomes bound or tight, his legs thrown a little more forward than in his usual or natural position; a constant thirst, and very often a considerable swelling of the ancles, &c. &c.

Remedy for a founder.—So soon as you are convinced that your horse is foundered, take from his neck vein at least one gallon of blood: give a drench of one quart strong sassafras tea, one tea spoonful salt petre, and a quarter of an ounce of assafœtida, and do not permit him to eat or drink for five or six hours—at the expiration of which time, should he not be evidently better, repeat the bleeding, taking half a gallon of blood, and give another drench: at night offer him some bran or oats, scalded with sassafras tea, and if it can be procured, let him have green food, fresh from the field, for it has the happy effect of opening the bowels and cooling the system: his feet should be nicely cleaned out and stuffed with fresh cow manure: his drink should be at least one half sassafras tea, with a small handful of salt thrown therein.

By the morning should the horse be better, nothing further is necessary, only being careful not to over-feed him. But should there be no change for the better, tie a small cord just above his knees, and with a lancet or phleme bleed in a vein that runs around the coronet, just above the hoof: take from each leg a pint of blood: give a pound of salts dissolved in three half pints of water, in form of a drench: keep his feet stuffed with fresh cow manure, and bathe his legs with equal parts of sharp vinegar, spirits and sweet oil or lard. By attention to these directions, in two or three days the horse will again be fit for service.

A horse in this unpleasant situation, requires great attention. Whenever they are foundered, they search for a bank of manure to stand on, which should always be prevented, as its heat increases the fever.

Horses slightly foundered, have sometimes been cured in a few hours, by standing them in pond water or mud, or by bleeding in the mouth, but those remedies are uncertain, and are not to be so much relied on, as those first recommended.

A foundered horse is generally very much reduced in flesh, before a cure is effected; and is always more subject to founder afterwards.

Large ridges on the hoofs or a turning up of the feet, are strong indications of old founders or other injuries.

HEMP.

The cultivation of this valuable plant has not, until recently, engaged the attention of the American farmer, and that on a limited scale in particular sections of the country. In Vermont and the northern parts of the state of New York, the raising of hemp has not, since the close of the last war, and then only by a few individuals, been attempted. The causes which have generally operated to retard its introduction, are, upon a correct investigation, attributable to the hardship and expense of dressing it, rather than the difficulty in raising or the want of a profitable market for vending whatever amount of it may be produced. The crop raised the last season in several counties upon the North river in New York, and some time since on the lands near Onion river, in Vermont, prove incontestibly, that our soil is of the first order for a large growth and easy cultivation.—Perhaps no vegetable, except grass, takes and grows more readily than hemp. In Europe, where hemp is extensively and profitably cultivated, the climate corresponds with the northern parts of the United States; hence it does not require to be acclimated to a high northern latitude in order to ripen and coat the first year's planting. The comparative advantage of raising hemp, may be easily estimated on calculating the quantity produced on an acre, the price for which it sells in market, the expense for seed, the use of the land, and the value of the labour in raising the crop. If the land is fresh and well prepared, half a ton on an acre may be a fair estimate; but if it is rather inferior, an acre will yield upon an average, one-third of a ton; and the clearing it of the seed, when taken green from the field, will cost one third part of the product, if done by a machine. Now, if half a ton can be raised on an acre, and it will cost one third of this quantity after it is cut and removed to the manufactory to fit it for market, that will leave to the grower six hundred and sixty lbs., which will sell, if of a middling quality for sixty-six dollars—that is at the rate of two hundred dollars per ton.—The seed required to sow an acre in the present scarcity, will cost eight dollars; the expense for labour in sowing, gathering and conveying the same to a place of manufacturing, will probably amount to ten dollars more, making an aggregate of twenty-four dollars. It is evident from this statement, that the cultivation of hemp, so long as it bears a price any thing like the present, is the most profitable crop that can be raised. The common produce of the fields (taking in the account the uncertainty of the seasons,) and the present reduced prices, do not more than pay for the labour in raising; leaving the finances of the farmer, at the end of the year, not more if so prosperous as they were at the commencement. But if the cultivation of hemp be generally introduced, the northern states will be able to compete, in the productive opulence of the field, with the cotton growing states in the south. The embarrassments of commerce will then be removed and the hand of industry and frugality will receive the rewards of plenty. Russia and the north of Europe have been abundantly supplied upon their frosty mountains and arid plains, by raising this productive vegetable, and should it be ever so generally cultivated, there is no probability of overstocking the market. The quantities used in different kinds of business, and particularly for ropes and canvass in shipping, are almost incalculable. The farmers in this vicinity will make a fair experiment this season, of the utility in raising it, whether it answers public expectation or not. Considerable quantities will be sowed and planted, and a machine for cleaning it is immediately to be erected on the falls in this place. Should the business be prosperous, the farmers of Vermont may congratulate themselves upon the value of the acquisition and the prospect of profitable employment.

[*Vermont Aurora*.

QUERIES AS TO THE COTTON CROP.

Mr. Skinner, *North Carolina, June* 6, 1828.

If you possess or can conveniently acquire any thing like tolerably correct information of the deficit in the cotton crop of 1827, when compared with that of 1826, you will greatly oblige the cotton planters by stating, in your useful paper, what that deficit is believed to be. From a knowledge of my own crop, and such of my neighbours as I have talked with, and from information which I have received from different parts of the state, I am satisfied that the crop of North Carolina of 1827, was little, if any, over one fourth of that of 1826. In Virginia, I understand, it was not better than in North Carolina. And from what I have learned in conversation with gentlemen who have visited Charleston, Augusta, and Savannah—and there made inquiries of several of the most respectable commission merchants, the crops in Georgia and South Carolina in 1827, fell short about two fifths of what they were in 1826. In North Alabama and Florida, they were not better than in Georgia and South Carolina. Whether in Mississippi, Louisiana, and Tennessee, they were as good or better, I have not been able to learn. The generally received opinion among those best informed is, that the crop of 1827, will be at least 250,000 bales short of that of 1826 Some go so far as to say it is 350 if not 400,000 bales short.

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[*] Levigated antimony, 2 drachms. Cream of tartar, and flower of sulphur, each half an ounce.

Should the deficit of 1827 be equal to 250,000 bales, and any disaster befal the crop of 1828, the effect upon the price of that article must be great. April and May have been dry and generally cool Such springs are usually followed by warm and moist falls which are sure to produce the rot—the greatest enemy to the cotton plant.

By this time the number of bales of the crop of 1827, shipped and to be shipped from the several great ports of the United States, I should presume, was pretty well ascertained, and believing it not unlikely that you may either know or possess the means of learning, I have been induced, as one of your subscribers and constant readers, to ask, that you would, through the medium of your very useful paper, give us the information much desired by

COTTON PLANTERS.

COTTON CROP OF THE UNITED STATES.

The *Savannah Georgian* of the 12th ult. contains a very long and particular statement of the crop of cotton of the United States, for 1828. Also the imports, consumption and exports of cotton in Great Britain —This paper states the total crop of the United States for 1828, will be 787,000 bags, viz:

North Carolina and Virginia, .	50 000	
Georgia, ...	120,000	
South Carolina, ...	120,000	
Sea Islands from Georgia and South Carolina, ...	36,000	
Mobile Bay, ...	95,000	
New Orleans, ...	366,000	
		787,000

We published an estimate in April, which made the crop of 1827, 706,000. [*Petersburg paper.*

DOUGLASS' PATENT THRASHING MACHINE.

For Thrashing Wheat, Rye, Oats, Barley, &c.

This machine is now brought to such a state of perfection, that the proprietor unhesitatingly offers it to the public, believing it to be the best and most approved plan now in use. It thrashes as fast as four hands can tend it The quantity thrashed (to do an easy day's work,) is about 100 bushels of wheat or 200 bushels of oats per day, and may be doubled by driving it. The straw may be easily bound after being thrashed, and is much better for fodder than when thrashed in the ordinary way, and the *grain may be thrashed clean when damp.* The wheat is cleansed from all smut, furze and dust, and other grain made perfectly clean and bright with once passing through a fanning mill. The machine is but little larger than a fanning mill, perfectly simple in its construction, not liable to get out of order, of one or two horse power. Price $100.

Having had one of the above mentioned machines erected in my barn, and witnessing its operation by the power of two horses, it is in my opinion, capable of performing a greater business than any other machine of the kind offered to the public As a test of its power, I thrashed one hundred sheaves of wheat of more than the ordinary size, in the space of twelve minutes. Said machine is simple in its construction, and to all appearance durable.

ROBERT EARLL.

Attica, Genesee Co. N. Y. 1827.

Having had one of the above mentioned machines set up in our barn, we certify, that in our opinion, it is capable of performing a greater business than any machine of the kind offered to the public As a test of its power, we thrashed one hundred and seven bushels of wheat in four and a half hours.

SEBE BRAINARD.
HARRIS BRAINARD.

Alexander, Genesee Co N. Y 1827.

I, Robert Knox, of the town of Scipio, County of Cayuga, certify, that said machine, set in motion by two horses, thrashed one hundred large cradled sheaves of flint wheat, averaging from eight to ten bushels per hundred sheaves, in forty minutes, and during that time the horses and machine were attended only by myself and son, and I am convinced that this machine will thrash one bushel in twenty more out of the same sheaves, than any other mode of thrashing out grain with which I am acquainted.

ROBERT KNOX.

June 8th, 1827.

☞A machine can be seen at the store of W. Rhodes for a few days, when, it will be removed in the country, and put in operation for inspection, (which the owner prefers) previous to offering for sale; due notice will be given, when and where it may be seen in operation.

Balt. June, 1828. ZALMON BOOTH.

MR. JACOBS' CORN REPORTS.

MR. EDITOR,

In your paper of 30th May last, I find an extract from the London Morning Chronicle of 23d April, relating to Mr. Jacobs' second report on the agriculture and grain of the continental states of Europe.

According to this report, the annual average exportation from all the wheat growing countries of continental Europe, amounts now to no more than 435,557 quarters, or 3,484,456 bushels; but if Mr. Jacobs had informed us, at the same time, what quantity these self same countries have furnished to England in passed years, (before the corn laws sealed her ports almost hermetically,) it would have been more instructive, as well as interesting to us; and if Mr Jacobs had added some information, shewing what quantities of wheat might be produced by continental Europe, under circumstances favouring the exportation, his report would indeed have a good deal of value for us as a wheat growing country.

The extract from the Morning Chronicle has a tendency to mislead our wheat-growing farmers, as it *seems* to prove that all the continental wheat districts can only spare the very moderate quantity of 3,484,456 bushels of wheat, or about 700,000 barrels of flour. This conclusion would be a very erroneous one; and the fact is this: The corn laws of England, which, by an almost absolute prohibition, are calculated to prevent the importation of wheat, in order to raise the price of that of their own growing, and more particularly, though indirectly, the rent of land, have forced the continental farmers to abandon the growing of wheat for exportation, and no wheat is now shipped for England from any of the wheat districts mentioned in the report, except for the purpose of raising the wind; or if any surplus remains on hand on the continent, which the home market *cannot* absorb, and which is therefore sold by the necessitous farmer at the exporting merchants' *own price*—a very low one of course. The grain factors in London, (mostly men of considerable property,) to whom such parcels of wheat are consigned, are at any time very willing to advance money thereupon, to the amount of one half or two thirds, charging 5½ interest, granary rent, &c.; and such parcels of grain are frequently laying in their warehouses for three, four and five years. The report of Mr. Jacobs does, therefore, not shew, that continental Europe, can absolutely furnish no more than 700,000 barrels of flour, and if our farmers were to conclude that, considering this moderate quantum and the great consumption of the article in England, there might still be an opening for them in the English ports, they would find themselves greatly mistaken.

I am in a friendly correspondence with a gentleman, who owns three considerable estates in Massovia, which is a district of Lithuania, and a fine wheat country. On each of these three estates he used formerly to sow five to six hundred acres in wheat; but now, owing to the effect of the English corn laws, he sows them with rye, and converts this in his own distilleries, into whiskey. He wrote to me, not many months ago, that for several years past he has entirely changed his mode of farming; and that, independent of rye for his stills, he devotes himself entirely to the breeding of Merino sheep and horses. Of the former he has several flocks, amounting to about 5000; and besides them he keeps about forty brood mares. Both these branches, he assures me, yield him a better profit than wheat could do.

If you think these hasty remarks worth publishing, you are welcome to do so.

A CONSTANT READER.

PROFITABLE COW.

Col. John Hare Powel, of Philadelphia county, has a cow of the short horn Durham breed, which gives 26 quarts of milk daily, and from which *twenty and a half pounds* of butter are made in a week Her feed is slop of corn meal, clover and orchard grass.

Col Powel has paid great attention to the breeding of valuable cattle, and has been remarkably successful. If our farmers will set down and calculate how many of their cows it will take to produce 20½ lbs. of butter per week, and how much the keeping of each cow is worth, they may form a tolerably correct estimate of how much more Col. Powel's cow is worth than one of their own, and they may possibly let in a suspicion, also, that excellent as is their style of farming, there is still room for some improvement

[*Poughkeepsie Journal, June* 4.

[A few years since, Mr. Gregg, a most respectable merchant of this place, owned a small red and white cow, which came down from Adams county, Pa. We have heard him, several times, offer a wager of $100 that she would give thirty quarts of milk a day; for he said she had repeatedly given thirty-two. She was kept in a grass lot adjoining his house, and well fed.]

HORTICULTURE.

GARDENING—SEA-KALE.

[From the 35th number (Feb. 1828,) of the Paris "Journal des Connaissances Usuelles et Pratiques.]

(*Translated for the American Farmer.*)

For thirty-five or forty years they have had in England an excellent vegetable, cultivated in most of their gardens, and sold in abundance in the London and other markets, which is to this day almost entirely unknown in France [and America,]—I mean the *Crambe Maritima*, or Sea Kale. It grows wild along a part of our coast, and also that of England. In some of the southern counties of the latter, it has been sought and gathered as a vegetable; and, more recently, introduced into gardens and cultivated, it has become one of the most esteemed.

Although it was known in France that we possessed the plant; and although we have a long time been acquainted with its culture—yet hardly any attention has been paid to it. In the royal gardens and those of the princes, and particularly at Versailles, it has been cultivated with the utmost success; as also by a few *amateurs*, near Paris and in the provinces; but in no part of France has it yet been sent to market, and the use made of it by some individuals is only an exception.

This vegetable deserves, nevertheless, all the favour it enjoys in England, being savoury and wholesome, earlier than asparagus, and as early as brocoli; (that is, at the season when green vegetables are most rare and most desired, and when also they are most beneficial;) and being, in fine, so easily *forced*, that it may be had, at slight expense and trouble, in the middle of winter.

It is true that the necessity of *bleaching*, every year, the young shoots, which are what is eaten, renders the cultivation a little more troublesome than that of ordinary vegetables. You have to wait, too, a couple of years for the first crop; and it is difficult to raise, because many of the seeds being defective, never come up, or the young plants are destroyed by wood-lice and other insects. But these inconveniences should not deter us from obtaining a vegetable really excellent, which lasts six or seven years, and sometimes a great deal more. They were felt in England as well as here, but they have not prevented its cultivation from becoming general. Besides, every difficulty can be readily overcome by a little care and good will on the part of the gardener; and several of our good horticulturists, such as Messrs. Hedy, Grison, &c. have proved that it can be raised in France with complete success. [It is cultivated with success, and is very highly esteemed at the hospitable old seat of Col. J. C. Wilson, in Somerset county, Maryland.]

It seems, then, that all that is wanting to make it common here, is to make it known. Now that we have a horticultural society, that will be a task for it, interesting and worthy of its labours.

* * * * * * *

CULTURE.

The Sea-kale belongs to the family of the *cruciferous* plants. It resembles the cabbage, and has large, thick waving leaves of a bluish colour, a stalk covered with branches, and a large round head of flowers, which are succeeded by little hard round pods, each containing a seed. The leaves and branches die in the fall; but the stalk lives, and reproduces others every spring. This vegetable was first discovered, growing spontaneously, on the sea-coast. When, early in the season, the new shoots begin to rise, and, as often happens, they are covered with a crust of sand brought by the wind or the tides, they lift it into little hillocks. Observation showed that the shoots, thus smothered, were white, tender, and excellent to eat; such shoots were sought in preference to any others. Transplanted from its state of wildness into gardens, the same circumstance indicated the means of producing the same effects; that is, bleaching or whitening the young shoots by depriving them of air and light. Indeed, it is only in that condition that the sea-kale is valuable.

Its culture may be reduced to two rules: 1st. To obtain good strong plants; and 2dly. To whiten the shoots in spring.

To obtain good strong plants, the soil should be light, mellow, deep, and well worked; and there should be a sufficient distance between the plants when they are set out—that is, about 18 inches.

Sea-kale is generally raised from the seed, but it may be raised also from slips or from roots. The seed is sown either where it is intended the plants shall remain, or in a nursery bed, to be afterwards planted out. The time for sowing is from February to May. Some persons sow in autumn; which is done at Versailles, for instance, but it is under frames and in old hot-beds.

To sow where the plants are to remain, draw (with a line) straight rows about eighteen inches or two feet apart, and along each row, at regular intervals, make little hollows, or troughs, to receive the seed, mixing the earth up well, or even renewing it entirely, if it be too strong; then in each hollow sow eight or nine seeds about two inches apart. To aid their vegetation, which is slow, they must be watered when the ground is dry. When the young seedlings begin to show themselves, they must be defended from lice and other bugs by the ordinary means; that is, by frequent waterings, and by sprinkling ashes on them before the dew is off,* or immediately after watering. When the plants have taken and are safe, you leave only one or three, according to the plan you may wish to adopt. They must be kept clear of weeds. In November, the dead or dying leaves must be taken off, and about two inches of good mellow earth or mould drawn up around the plant. The second year will require a repetition of the same observances.

Sowing in a nursery bed differs from the preceding method only in this, that, instead of the little troughs or basins, you sow the seed in rows about nine inches or one foot apart, and thick enough to leave the plants six or eight inches distant in the rows after thinning. There they remain a year, attended as above directed; and in February or March following, are taken up and planted out where they are to stand.

Another mode of nursery planting, is to prick the young plants out when they have only their seed leaves. In that case the seed must be sown much thicker, or even in a hot-bed. Such was the plan pursued by M. Hedy, when he was head gardener at Versailles.

WHITENING SEA-KALE.

It is generally two years from the seed that sea-kale begins to bear, and that it must be whitened. To accomplish this there are various ways, which may be divided into the following classes: 1st. that method which consists in shutting up the plants, by means of pots, boxes, frames, &c. 2d. nature's method; that is to say, covering the plant with sand, gravel, coal sand, light mellow earth, mould, &c. 3d. covering them with a thick coat of long litter; to which might probably be substituted, at least in part, leaves, fern, &c.

Whichever of these methods be adopted, it must be borne in mind that the object is, to obtain, by as complete an exclusion of light as possible, shoots that shall be white. If, then, pots are used, the holes in them must be plugged, the rims pressed tight against the ground, and some earth even drawn up around them, that it may be still darker. If boxes, frames, &c. are used, every joint, chink and crack should be carefully stopped; and if the frames have glass sashes, the latter should be closely covered with straw and mats, so as to exclude the light effectually, or their place be supplied by solid wooden sashes or by planks.

To examine each of these methods in detail, would be misplaced in an elementary essay. I will merely say that pots are, for many reasons, the best for private gardens; but that when the cultivation is for market and on a large scale, it will be best to adopt the mode by covering with sand, &c. or that by long litter, or that by frames, &c. In England they make, expressly for the purpose, pots with lids, which are very convenient and useful, but much more expensive than the common flower pots, and therefore seldomer resorted to.

The sea-kale puts forth its shoots naturally, in the climate of Paris, from the end of February to the end of March, according to the season. Therefore, when they are not to be forced, the plants that are to be whitened must be covered in the course of February or beginning of March. When the shoots have attained the length of five or six inches, they are cut off about half an inch above the lower end, taking care not to injure the buds that are left, which are to furnish a second growth of shoots.—These second shoots might, in their turn, be whitened also (as is sometimes done,) by covering them like the first; but generally, after having cut the shoots, the plants are left in the open air, to form buds for the next year.

Sea-kale shoots, gathered at the proper time, have very much the structure and appearance of a stalk of celery, deprived of its large leaves and retaining only the centre or heart leaves. They are boiled with a great deal of water, and carefully drained; and they are eaten with white sauce, with butter, or alone, like asparagus, cauliflower, &c. Their flavour partakes of that of the asparagus and that of brocoli, or Bruxelles cabbage. If the shoots are cut when only three or four inches, they are a vegetable of remarkable delicacy and sweetness. But that practice would be expensive, and would suit only the rich: for common purposes it is better to let the shoots grow longer, when they furnish a greater quantity of food, and are still very good. In the London markets sea-kale is often sold eight or nine inches long, or even more.

FORCING SEA-KALE.

For a winter crop, begin in February, January, December, or even as early as November, to whiten your plants by some one of the methods above described. When the pots are placed or the mounds of sand, &c. made, all the intervals among the pots, or mounds, are filled with good manure, to the height of from one to two feet, according to the rigour of the season. In from three to six weeks, the plants, excited by the heat of the manure, send forth shoots that are fit to gather. The English gardeners strongly recommend that the heat should not be suffered to exceed 60° of Farenheit, (12$\frac{4}{9}$° Reaumer,) as beyond that point it might burn the plants.

In the royal kitchen gardens at Versailles, and in some of the gardens in the neighbourhood of Paris where the sea-kale is cultivated, it is forced in frames. For that purpose the same process is adopted as for forcing asparagus. The paths are dug eighteen or twenty inches deep, and filled with fresh manure. You then set the frames, and line them around the sides with manure, and darken them by one of the methods formerly indicated. In digging out the paths, the upper, or superficial earth, should be thrown upon the hot-bed, so as to cover it four or five inches deep, and on this again there should be placed some litter. In the kitchen garden at Versailles, it is commonly a one year's plant that is forced in this way. They begin about the middle of October to make hot beds and set frames; which they repeat every fortnight, in order to have a succession of the vegetable throughout the winter.

In the methods I have described, the sea kale is whitened on the spot on which it grew. I have tried another mode, that of transplanting. Carried into the cellar and treated like the *endive*, it would not shoot, and the roots became mouldy. But I succeeded very well in planting it, crowded, on a thicker bed of leaves, covered with light earth and surrounded by frames.

To obtain the seed, a number of plants of two, three or more years, should be allowed to grow naturally in the open air; which is the way to make them blossom vigorously. The English advise that all the flower branches that are not wanted for seed should be pinched off, that they may not divert any nourishment from the seed-bearing ones.

[* This suggestion strikes us as particularly worthy of notice. How easy to sift ashes over beds of turnips, radishes, and other vegetables, so often destroyed by insects. The ashes being dissolved, forms a ley, which, it may be supposed, would destroy or drive them off.]

WAY TO HAVE EARLY VEGETABLES.

Get sods ten inches long, and of the same or greater breadth. Lay these sods on a common bed, or a bed made of leaves, and protect it with mats drawn over poles resting on forked sticks. On each sod sow one or two rows of peas, or any other vegetable, and cover them with good mould. When the season will allow of these plants being transplanted, take up each sod separately, and place them in the open air, where you wish them to stand, at proper distances. [*Ibid.*

SILK—INQUIRIES.

J. S. Skinner, Esq. *The Pows, April* 21, 1828.

Sir—In your American Farmer, I find a great deal said about the silk worm, raising silk, &c. &c. but I am not advised as to the reason, why the imported worm is preferred to our indigenous manufacturer.—I was drawn to this inquiry by this circumstance; while reading a treatise on the silken subject, a young fly entered my hall, and presented itself on my supper table; displaying its rich and gaudy wings of yellow hue, to my inspection. I arrested it, and placed it in a shade; the next day it deposited three eggs; and in three days went to sleep for ever. The eggs were neglected: in two days thereafter another fly presented itself from a cocoon, taken from my garden, and suspended in the house. This fly exhibits a rich brownish hue, of silky texture, with a round transparent spot near the centre of each wing, about the size of a small garden pea; I have this fly now in a shade, where it has deposited about one hundred eggs, nine of which I enclose in the cocoon.

I should like to know, through your valuable communicant, why the native cocoon is not as valuable as that brought from abroad; and if not as valuable, why it may not be cultivated for some good and useful purpose.

These native cocoons abound in our woods, gardens and fences, and seem to invite, nay press us to appropriate them to some advantageous purpose.

Yours, &c. COWLES MEAD.

ANSWER.

Mr. Skinner, *Baltimore, June* 12, 1828.

The cocoon of the native silk worm which you handed me has occupied a good deal of my attention. From the letter of Mr. Mead, it appears this species of silk worm is to be found in great numbers in Mississippi; and I believe it is common to all parts of the union. It certainly approaches as near to the Italian silk worm as do the aborigines of America to the Europeans—the colour being dark, and the fibre coarse. The construction of the cocoon is precisely the same as that of the Italian—the fibre being laid on by the worm in the same manner—the colour is a dark drab, and the cocoon about double the size and weight of the Italian. There is one peculiarity, however, in this American cocoon—the gum, with which it is charged, is almost *insoluble* in boiling water, which fact, it is feared, will render its appropriation to a profitable use impracticable. After having immersed the cocoon in water, and gradually raised the temperature even to the boiling point, I found all attempts to wind off the silk ineffectual, till I had impregnated the water with soap, and boiled the cocoon steadily for six hours. The gum then gave way, and had the cocoon not been perforated by the moth, I could have wound off the silk with facility. Another peculiarity is, the colour is not affected by extracting the gum as in the Italian; it is possible, however, that, as in the latter, the colour of the cocoon may be derived from the gum, and that, notwithstanding six hours boiling, the gum was only partially extracted. The eggs of this worm, sent by Mr. Mead, will be carefully hatched this summer, if possible, if not, next spring; and an experiment tried with the worms upon a larger scale. My impression is, that this worm when reclaimed, and fed on the mulberry, if it will eat it, will produce good silk. It would be interesting to know the kind of tree it feeds on in Mississippi. In some parts it feeds on the cherry, (what kind of cherry, I, as yet, have not ascertained.) The egg of this worm is formed precisely like that of the Italian, but is white, and about four times as large as the latter. The silk, after being boiled six hours, is pretty harsh, and the fibres about double the size of the common silk fibre, and of about the same strength.

As to Mr. Lawyier's letter enclosing cocoons from worms fed on the common red mulberry, I have only to remark, that we have had numberless specimens of sewing silk made from that species of mulberry, of a quality equal to any made from the white. There can be no doubt that good coarse silk can be made from it; or that the worms will thrive very well when fed on it. I am, however, doubtful whether silk made from it will have so splendid a lustre, and whether it will be of the exquisite fineness of texture of that produced from the white mulberry. And yet it is possible, that the one will be found equal in every respect to the other. This must be left to actual experiment by some skilful person on both kinds at the same time, and with worms from the same family. I am now making an experiment, and shall shortly be able to speak more decisively on the subject.

Yours, &c. GIDEON B. SMITH.

RURAL ECONOMY.

(From the London Mechanic's Magazine.)

MANAGEMENT OF BEES.

It is the common practice to place the hives where the sun has the greatest influence,—such as beneath a south wall,—and to let them remain in the same situation during the winter. For the summer this is all right; but as the winter approaches, the hives should be placed where the sun never appears. It is not so much the degree of cold that injures the bees as the variations. Under a south wall the sun is sometimes powerful, even in the depth of winter; thus the bees are roused into action, and are ill prepared to meet the extreme cold of the night. Besides, when laying in a torpid state, which they do during the coldest weather, the bees do not require so much food; and I am led to believe that the cold is not so excessive during the night where the sun has not shone during the day; but even allowing the reverse, still I think as the degrees of cold are less variable, the north side of a house or wall is the preferable situation during the winter. Nor should the bees be removed into the sun until the trees have so far shot forth their buds that they may find a sufficient repast.

I think those hints may be useful to those who would wish to become practical apiarists. My knowledge of the matter is theoretical; but I have friends who follow the practice. R. H.

COFFEE.

If coffee be not used as a diluent for relaxing the fibres, it ought to be made strong. The best proportion is, one ounce of well roasted and ground coffee to one pound or pint of water, which should be just allowed to boil up: for the longer it is boiled, it loses the more of its volatile and aromatic particles, and consequently, becomes weak and insipid. An *immoderate* use of this decoction is prejudicial to the healthy, and destructive to the diseased It debilitates the latter still more, by causing great undulations in the blood, tremors in the limbs, giddiness, and a certain insupportable timidity.

INTERNAL IMPROVEMENT.

STATISTICS OF VIRGINIA.

In every country, there is some leading object of pursuit, which impels, with more or less force, the acts of the people. This leading principle may be called the temper of a nation, and necessarily exerts a controlling power over all its acts. Where the people have a voice, however, it is they who act, and are acted on by this moral force. Internal improvement is at this time the object which evinces the paramount feeling of the people of this country. To meliorate their condition in every practicable manner that awakened ingenuity may point out, will henceforth mark and exalt the character of the people of the people of the United States; but from the complex nature of the form of government, works of public utility will be undertaken and executed with unequal intelligence and energy, following the impulse given by local state politics.

New York and Virginia offer themselves as prominent examples, illustrative of the foregoing exposition. The two states, with very unequal internal features, possess in one respect, in a very remarkable manner, similar advantages, as connecting links between the great Atlantic harbours and the vast INTERIOR of North America; both have a territorial extension, which grasps the necessary extremes. The western border of one reaches the great Canadian sea; that of the latter is formed by the Ohio river. With such resemblance as to facility, how vast has been the difference in positive execution of plans to render their respective advantages available? Few citizens of Virginia could, without regret, answer the interrogatory. From local position, from the obvious effect on the individual prosperity of the people, and on the importance of the state as a member of the confederacy, Virginia, in place of being behind New York and Pennsylvania, ought to have been the leading state of the Union, in every great object of internal improvement. In many respects the mouth of the Chesapeake bay is the best entrance on the coast of the United States. So far from being ever frozen, this immense commercial inlet is never impeded with ice.

In order to place the local advantages of Virginia a clear light, the following tables have been calculated. Their absolute accuracy cannot be vouched for, but their general results will serve to give views sufficiently correct of the relative elevation, extent, and distributive population of Virginia.

Summary Table of Virginia.

Sections.	Square Miles.	Whites.	Free Persons of colour.	Slaves.	Total.	Popu. to sq. mile.
Eastern,	9,035	116,179	16,959	128,448	261,584	29
Middle,	27,737	350,672	17,968	280,024	648,664	23¼
Western,	28,130	134,122	1,070	13,316	148,508	5
Amount,	64,892	601,973	35,997	421,888	1,058,756	16¼

Alluvial, or Eastern Section of Virginia, composed of Accomac, Caroline, Charles City, Elizabeth City, Essex, Gloucester, Greensville, Isle of Wight, James City, King and Queen, King Geroge, King William, Lancaster, Mathews, Middlesex, Nansemond, New Kent, Norfolk, Northampton, Northumberland, Princess Anne, Prince George's, Prince William, Richmond, Southampton, Surry, Sussex, Warwick, Westmoreland, and York counties.

Middle or Hilly Section of Virginia, Albemarle, Amelia, Amherst, Augusta, Bath, Bedford, Berkeley, Bottetourt, Brunswick, Buckingham, Campbell, Charlotte, Chesterfield, Culpepper, Cumberland, Dinwiddie, Fairfax, Fauquier, Fluvanna, Franklin, Frederick, Goochland, Halifax, Hampshire, Hanover, Hardy, Henrico, Henry, Jefferson, Loudon, Louisa, Lunenburg, Madison, Mecklenburg, Morgan, Nottaway, Nelson, Orange, Patrick, Pendleton, Pittsylvania, Prince Edward, Powhatan, Rockbridge, Rockingham, Shenandoah, Spottsylvania, and Stafford counties.

Western Section of Virginia, Brooke, Cabell, Grayson, Giles, Greenbriar, Harrison, Kenhawa, Lee, Lewis, Mason, Monongabela, Monroe, Montgomery, Ohio, Nicholas, Preston, Pocahontas, Randolph, Russell, Scott, Tazewell, Tyler, Washington, Wood, and Wythe counties.

Table of the ascents and descents from tide-water in James' river to the mouth of the Great Kenhawa, by the route of Jamestown, Craig's creek, Sinking creek, and Great Kenhawa.

	Miles.			Feet.	
Richmond, up James' river to mouth of Craig's creek, ...		200	Rises		925
Up Craig's creek to the mouth of John's creek,	49	249	do.	345	1270
Highest spring tributary to Craig's creek, . .	8½	257½	do.	228	2498
Lowest point on dividing ridge, ...	0½		do.	53	2551
Highest spring tributary to Sinking creek, . .	0½	258	Falls	42	2509
Mouth of Sinking creek,	34	292	do.	924	1585
Down Great Kenhawa to the mouth of Greenbriar river, ...	55	347	do	392	1333
Bowyer's Ferry, . . .	46	393	do.	403	930
Kenhawa at the foot of the Great Falls, .	21	414	do.	341	589
Ohio river at the mouth of the Great Kenhawa.	94	508	do.	10[illegible]	181

Let any citizen of Virginia, cast his eye on the splendid map of his state, and range over its bays, rivers and mountains from Norfolk to the mouth of Great Kenhawa, and what must be his reflections on not seeing traced even a great connecting road. Without intending any reproach to the people of Virginia, which would be at once uncandid and unjust, we may seek the stationary position of the state in other causes. The table given shews the very unequal distribution of her population, and serves also to explain some, otherwise very intricate effects of its local politics; but Virginia had, like New York and Pennsylvania, a territorial extent which rendered her utterly independent of the confederacy in the performance of any great work, canal or road to unite the Atlantic slope with the valley of Ohio. The two fine rivers, James river and Kenhawa, seem to flow in directions, and to have pierced the mountain chains in such a manner as to remove what was beyond human force, and leave to the people of Virginia the sublime task of completing what nature left undone. The rivers have carried on an unceasing war with the apparently stable mountains, and wore them down to their base.

In a state possessing such a natural line, and such men as her Mercers, her Ritchies, her Cockes, her Cabells, her Garnetts, *et multis aliis*, the great natural line of James and Kenhawa river cannot always remain unimproved. It is a narrow and contracted view of canal or road creation, in such a country as that of the United States to consider it of local interest. No canal or road traversing any state, can have its resulting benefits confined to that particular political section. Such improvements are national, and if well constructed they are permanent as the natural features themselves. If a line of canals, or a line of roads and canals were therefore constructed from tide water in James river to the Ohio at the mouth of Great Kenhawa, then would another chain be added to bind the east to the west, and another ligament be created to strengthen the union, and secure that compact which, however they may differ as to its provisions, every citizen of the United States holds sacred.

LADIES' DEPARTMENT.

TIGHT DRESSING.

In the course of a lecture on the structure and functions of the human frame, recently delivered at the Bristol Institution by Mr. Estlin, that gentleman, after exhibiting in an animal the natural situation of the viscera contained within the trunk of the body, referred his audience to the skeleton, for the purpose of showing how easily and how injuriously any tight dress around the body must affect the important organs within. If the ribs are prevented from freely expanding during inspiration by any external pressure, shortness of breath on the slightest exertion, and palpitation of the heart, are the consequences. Any thing tight below the ribs, on the part called the waist, is still more injurious, as there no bony protection exists for the delicate organs within. A great mistake, he observed, seems to exist as to the natural from of a body at this part, it being usually supposed that the disproportion between the circumference of the chest and the waist is far greater than it really is; he recommended his audience to study Baily's beautiful statue of Eve, in the institution, for juster ideas of the proportions of the human frame.

A frightful train of stomach and pulmonary complaints are the effects of the mode of tight dressing of the present day; and though to the customs of society a degree of deference is due, he was convinced that good sense enough exists to allow of any who wished it, to pay a sufficient attention to dress, without incurring the charge of singularity or affectation on the one hand, or injuring health on the other. A little anatomical figure, he thought, would be a good appendage to the toilet; it would lead the votary of fashion to imagine that the heart was praying for room to palpitate; the lungs for liberty to perform their important office of purifying the blood; the stomach would supplicate for space to exercise its necessary functions of digestion; and the thousands of absorbing vessels in the intestines would entreat that destructive pressure might not disable them from their indispensible duty of extracting nutriment from the food; and carrying life and strength and energy to every part of the system

[*English paper.*

ADDRESS TO A HUSBAND.

BY MISS PORTER.

O grant my prayer, and let me go
Thy toils to share, thy path to smooth;
Is there a want, a wish, a wo,
Which wedded love can fail to soothe.

At morn, when sleep still steals thine eyes,
My hand thy temperate meal shall spread;
At night my smiles shall check thy sighs,
And my fond arms support thy head.

And if thy vexing cares should dart
Some hasty word, my zeal to chill,
Still this unchanging, tender heart,
The sacred vow I made, shall fill.

To take Spots out of Silk, Linen or Woollen.

Spirits of turpentine, twelve drops, and the same quantity of spirits of wine; grind these with an ounce of pipe-maker's clay, and rub the spots therewith — You are to wet the composition when you do either silk, linen, or woollen with it; let it remain till dry, then rub it off, and the spot or spots will disappear.

True spirits of salts diluted with water, will remove iron moulds from linen; and sal-ammoniac, with lime, will take out the stains of wine.

SPORTING OLIO.

(*Items from the British Farmer's Magazine.*)

Galloping Match.

On the 25th Nov. Mr. Pollock engaged to ride eight horses eighty-two miles in four hours and a half, and which was completed with considerable time to spare, in the following manner. The first horse (a fine hunter) did ten miles to Barnet, in thirty-four minutes and a few seconds; the next, an American mare, reached Hatfield, the next ten miles, in thirty five minutes; the third went eight miles, to Wolmar Green, in twenty-five minutes; the fourth went to Baldock, ten miles, in twenty-four minutes; the fifth reached Guford, another eleven miles, in thirty-ty four minutes; the sixth went to Buckden, twelve miles, in thirty-seven minutes; the remaining part of the distance, twenty-one miles, was rode leisurely in, and Mr Bullock won, without much difficulty, by a quarter of an hour.

Trotting Match.

The long expected match between Mr. Hall's Stripling mare and Captain Smithson's bay horse, *Guest*, took place on the 13th of September, near Oxford, for 100 sovereigns, each carrying fourteen stone. The engagement was to trot fourteen miles. Betting six to four on the mare.—The match was won by the mare in great style, in fifty-nine minutes and twenty-eight seconds. The horse broke from distress, in the thirteenth mile.

Match against Time.

Mr. Hayes started on Thursday the 19th ultimo, on a fine blooded mare, to ride ninety miles in five hours, from Saint James's chapel. The equestrian rode eleven stone, and had trained for the match, which was a sporting one. He was allowed what horses he pleased. He went through Kilborn Lodge, Ware, &c. to the foot of the hill near Padbury, Bucks. Betting was six to four on time, with plenty of takers. The journey was done as follows: —

	miles	min.	sec.
The first horse	8	25	10
The second	10	31	12
The third	8	25	20
The fourth	7	21	8
The fifth	9	28	10
The sixth	10	33	0
The seventh	8	25	10
The eighth	8	24	8
The ninth	6	19	0
The tenth . . .	12	41	10
The eleventh	4	16	32

Total, ninety miles in four hours and fifty minutes.

The match was won easy, and the gentleman who rode did not appear much fatigued.

London to Aylesbury.

Isaac Crompton, groom to Captain Prescott, started on Wednesday, the 18th ult. backed by his master for 100 sovereigns, to go on foot from Oxford-street to Aylesbury, in five hours and twelve minutes. Betting even, but the man for choice.—The pedestrian performed the first eight miles in four minutes within the hour, and the sixteen was done seven minutes under the two hours; the thirty-two miles were accomplished in four hours and three minutes, and the pedestrian halted and refreshed a few miles from home; he won the match easy with four minutes to spare. The distance was rather over forty miles.

Liverpool Races

The rapid progress made by these races excites general astonishment, and cannot fail of making it a first rate meeting Mr. Lynn gives a Gold Cup, value 100 gs. to which is added a stakes. The tradesmen also give a 100 guinea Cup, and 100 sovereigns in specie, with a stakes added. Besides these and other valuable prizes, two Free Handicaps are proposed, one of them having 146 horses put down, and the other 101—the nominations including Memnon, Matilda, Nonplus, Longwaist, Granby, Actæon, and most of the crack racers.

Chester races are fixed for the 5th of May, and following days; the entries are very numerous, each of the Free Handicaps having more than 100 nominations. Anson Hunt Races will take place March 25 and 26, on Whittington Heath.

Great Match from Doncaster to London.

At the close of the sport at Doncaster races, Captain Smith backed his groom, Samuel Ireland, to go on foot to London, in 53 hours. The match was for 200 sovereigns, and the pedestrian to accomplish 160 miles. He performed the task in grand style; winning his match by 20 minutes.

Major Yarburgh has refused 1,200 guineas for his b. c. Laurel (who came in third for the Doncaster St. Leger,) offered him by Lord Cleveland.

Colonel Wilson has challenged with Lamplighter to run any horse in England, and it is expected a match will be made between him and Mulatto.

Mr. Gifford has sold his celebrated horse Leviathan, to his Majesty for 2,000 gs. Leviathan was bred by Mr Painter, of Stafford: he was got by Muley, his dam by Windle, her dam by Anvil, out of Figaro (by Snap,) which was the dam of Saltram Saltram was the property of the King when Prince of Wales.

We understand that the Montgomeryshire foxhounds and the seven horses belonging to the Master of that Hunt, are to be disposed of. The hounds are of a very superier description, having killed in 1825, their 54 foxes out of 63; and the horses have been summed *a la Nimrod.*

A game keeper in Herefordshire killed the following heads of game, from January to December last year, omitting the months of October and November, the accounts of which he lost:—Pheasants, 217; partridges, 443; woodcocks, 34; snipes, 15; wild ducks, 2; land rails, 1; hares, 142; leverets, 68; rabbits, 3997—total, 4919

MISCELLANEOUS.

CONSUMPTION.

Every remedy calculated to produce healthy effects in peculiar diseases, may be impeded, or liable to failure, when improper diet and other causes are allowed to prevent or destroy the intended beneficial effects. Thus in common fevers, if gross food and stimulant causes are allowed to act, no tonics nor antifebrile remedies can prevail over the fever.

The same may appear in Consumption, when the Pulmel or any other proper remedy may be used to cure it. This is another cause of the prevalent fatal termination of this disease. The majority of the physicians have not been taught, and therefore do not know how to distinguish all the kinds of Consumptions, nor how to cure it: they do not know the proper remedies to be employed, and often adopt a systematic mode of treatment highly improper in most cases; or when they employ proper remedies, they allow their effects to be impaired by improper diet and auxiliaries.

It is our purpose at present to mention some of the causes that prevent the beneficial effects of the Pulmel, in order that those that take it, may avoid the errors resulting therefrom, and not be disappointed.

1 Exposure to cold and rain.

2. Wakes, and want of sleep, or excessive sleep.

3. Every kind of stimulant liquors, except mild wines in some states of exhaustion, or convalescence

4 Every kind of spices and stimulant condiments, except salt, sugar, and vinegar.

5. Salt meats and fish at all times improper.

6 Low diet becomes improper as soon as the internal inflammation is subdued.

7 Every thing that increases the general debility and emaciation

8. Calomel, Prusiate, Arsenic, &c. always improper, because they unfold the tubercles, or create a vicious state of the system; difficult to remove.

9 Bleeding almost injurious by prostrating the vital system, except in cases of violent inflammation.

10 Milk becomes improper in the inflammatory and typhus stages of the diseases; but very proper in the incipient, confirmed, and purulent stages.

11 Deep meditations, excesses of body or mind, violent passions, &c. lead to fatal results.

12 Suppressions of regular evacuations.

13. Inhalation of smoke, dust, and deleterious vapours.

14 Great exertions of body or voice, or violent motions.

15 Violent drastics or emetics.

16 All kind of unwholesome or undigestible food, such as cucumbers, lobsters, fat, pickles, &c.

17 Warm liquors, tea, and coffee.

18. Absolute repose, laziness, and inaction.

These and many other causes may exert more or less influence on Consumptive patients, and any one of them prevent or retard a recovery, even when under a course of Pulmel, particularly if several of them should be combined to counteract the remedy and diet. Wherefore it is highly important to know them, avoid them, and adopt instead the contrary course of precautions promoting the good effects of the Pulmel, which shall be the topic of a future communication. Medicus.

ELECTION OF PRESIDENT.

The tenth presidential term expiring with the 20th congress, on the third of March ensuing a choice of the electors, and of president and vice president must be made in the passing year. The law of congress (of 1792) provides, that the choice of electors of president, &c. must be made within thirty-four days preceding the first Wednesday of December. And the constitution requires of the electors to meet in their respective states on said third Wednesday of December, to vote, by ballot, separately for a president and vice president of the United States, one of whom, at least, shall not be an inhabitant of the same state with themselves. This year the first Wednesday of December falls on the third day of the month, consequently the choice of electors must be made on or after the 31st of October, and before the first Wednesday of December.

According to the laws now in force (and at present there is no probability of their being changed) the ensuing choice of the electors will be made in the several states of the union, in the following manner.

By General Ticket. (18 States)

New Hampshire,	8 votes	North Carolina,	15 votes.
Massachusetts,	15 do.	Georgia,	9 do.
Rhode Island,	4 do.	Ohio,	16 do.
Connecticut,	8 do.	Indiana,	5 do.
Vermont,	7 do.	Mississippi,	3 do.
New Jersey,	8 do.	Illinois,	3 do.
Pennsylvania,	28 do.	Alabama,	5 do.
Virginia,	24 do.	Missouri,	3 do.
Louisiana,	5 do.	Kentucky,	14 do.

By the Legislature. (2 States.)

Delaware,	3 do.	South Carolina,	11 do.

In Districts, (4 States)

Maine,	9 do.	Maryland,	11 do.
New York,	36 do	Tennessee,	11 do.

Total 261—of these 132 are necessary to constitute a choice by the electoral colleges.

Little birds fed in chambers constantly on hemp seed, become black There is no more striking instance of degeneration than the common cock and hen, compared with the original in India. The wild canary is brown and green, and it has not been in Europe for 300 years.—There are some with plumes on the head: such is the bird in a state of nature In Syria, animals, goats, cats, rabbits, &c. acquire a beautiful long silk hair

[*Lon. Medical. Gaz.*

THE FARMER.

Baltimore, Friday, June 20. 1828

☞It is stated in a late number of the British Farmer's Magazine, that at the late Doncaster Agricultural Meeting, Lord Althorp described an interesting experiment which he had made to ascertain the comparative merits of Swedish turnips and mangel-wurzel in the fattening of cattle, the result of which went to prove the superiority of the latter. Two oxen were at the same time put to these different kinds of food, and continued at them for a stated period: that which was fed on mangel wurzel increased considerably more in weight than the other, which was fed on Swedish turnips; and the other, which had been at turnips, was put to the mangel-wurzel for a similar period; and it was found, at the termination of the experiment, that the ox which had been put from the mangel-wurzel to turnips, had lost weight, while the other, which had been removed from turnips to mangel-wurzel, had gained considerably. His lordship further observed, that during the droughty season, when the turnips had been nearly all burnt up or destroyed by the fly, the mangel-wurzel had flourished, and was an abundant crop.

☞We copy the following from the English publication before referred to, for the purpose of drawing to it the attention of the Board of Trustees of the Maryland Agricultural Society, so far as to determine whether it would not be expedient to offer, in such form, and under such rule as they may think best, premiums for the best and cleanest crop, or parcel of seed wheat, oats, barley, rye, &c. There is no doubt but such a premium might be bestowed with more precise and just reference to the skill and care of the cultivator, than those which have been offered for tobacco—the quality of which depends so often, and uncontroullably, on the nature of the soil.

"The premiums offered for seed-wheat shown in Haddington on the 22d of September, and 6th of last month, were gained as follows: there being two days of competition, to suit the views of those who prefer earlier or later sowing. Sept. 22, by Mr. Syme, for 20 bolls of best and cleanest wheat, 3*l* 3s. By Mr Ker, for 20 bolls of second best do. 2*l* 2s. October 6, by Mr Ker, for 20 bolls of best do 3*l* 3s. By Mr Brodie, for 20 bolls of second best do. 2*l* 2s. No premiums offered by the Society have been of more advantage than those for seed-corn, as seven years ago it was hardly possible to find a bag of perfectly clean wheat in Haddington market; and now the far greater number of parcels presented, will bear the inspection of the nicest critic to be met with there."

☞In selecting the seed of mangel-wurzel, a country correspondent for the British Farmer's Magazine recommends, as most fit for cultivation, that which grows highest, having a moderately fine leafy head and purple colour inside; which, he says, can easily be ascertained by cutting a notch, without the least injury to the plant. He adds, that the generality of growers attend but little to the cultivation of the best seed, frequently using the most wild and unprofitable varieties; and he recommends the above as not only sweeter and abounding more in the fattening principle, but very much preferred by stock.

☞The following may be a curious memoranda for the American reader. From an account kept for 29 years of the commencement and conclusion of Harvest, on an estate in Berwickshire, England, the following is taken as comprising some of the earliest and latest dates.

Began	*Finished.*
1798, Aug. 13,	Sept. 10.
1799, Sept. 16,	Oct. 22.
1803, Aug. 22,	Sept. 14.
1806, Sept. 1,	Sept. 29.
1808, Aug. 18,	Sept. 8.
1814, Sept. 14,	Oct. 3.
1816, Sept. 30,	Oct. 28.
1817, Sept. 16,	Oct. 21.
1820, Sept. 4,	Sept. 22.
1824, Aug. 18,	Sept. 4.
1825, Aug. 15,	Sept. 3.
1826, July 24,	Aug. 10.

Maryland Crops.—The Chestertown Telegraph states, that the prospect of good crops of wheat, in Kent County, is more flattering than it has been for many years. The same paper has the following paragraph:—

Early Harvest.—On the 10th inst. Wm. H. Barroll, Esq of this place, cut a lot of rare ripe Wheat of about five acres, which was sufficiently ripe, and of large excellent grain, and yielding, it is supposed, about 20 bushels to the acre.

On the 16th inst. a bunch of rare ripe Wheat, was deposited in the American Farmer Office, from the farm of Wm. Gibson, Esq.

Late and Important from Europe.

The packet ship Pacific, capt. Crocker, arrived on Monday morning from Liverpool, whence she sailed on the 16th May. By this arrival the New York Commercial has received London papers to the 15th inclusive.

Catholic Claims.—The resolution of Sir Francis Burdett, was adopted on the 12th in the House of Commons, by a majority of 6, after a very long and animated debate.

Russian Declaration of War.

The long threatened crisis has at length arrived. The die is cast; and the Muscovite advances upon the Ottoman.

The Russian Declaration of War, and the manifesto by which it is accompanied, has been received. It is an extended history of the grievances of which Russia complains and of the negotiations by which she has sought to redress them. It declares that Russia has no ambitious plans, that enough of nations and countries already obey her laws, but that she will not lay down her arms without obtaining her rights. The manifesto premises that the treaty of July 6th shall be observed, and that Russia will co-operate with the Allies to carry it into effect.

The objects of the war on the part of Russia are stated in the declaration to be—to compel Turkey to pay for the expenses of the war, and indemnify the subjects of Russia for losses sustained from the Turkish government, to enforce the due observances of former treaties—and to secure the inviolable liberty of the Black Sea and the free navigation of the Bosphorus.

Wittgenstein's army crossed the Pruth on the 26th or 27th of April, and is in full march towards Constantinople. While the large naval armament of Sebastopol co-operates on the side of Varna, the corps of General Pacovich, flushed with its recent triumphs in Persia, is to advance through the southern frontier of Turkey. But this is not the only important operation with which the war is expected to commence. The Russians, it is said, would cross the Danube about the same time into Bulgaria, and push forward as rapidly as possible, supporting their main army by a landing near the Golf of Verona.—The state papers issued on this occasion possess all that diplomatic tact for which the Russian Cabinet; under the Count Nesselrode, has been always distinguished.

COMMERCIAL RECORD.

Liverpool Cotton Market, May 15.—The sales of the week are 18,000 bags, principally equal to those of last week. The import is 18,000 bags.

May 16.—Thus far this week we have experienced a steady demand for cotton, and yesterday the market being well attended by dealers and speculators had a lively appearance, and although we cannot state an advance, the extreme prices of last week are readily obtained. The public sale of about 2000 bags announced for to day, mostly stained Sea Island, engrosses the attention of purchasers this morning.

The import of cotton this week exceeds 20,000 bags.

Ashes.—At a public sale on the 12th inst. of New York Potashes, only 30 bbls. of Pearls found purchasers at 31s. The whole of the Pots, 77 bbls. were sold at 30s 6d. for stained, to 32s. 6d. for sound per cwt. Montreal Ashes are very flat. *Tar*, 1700 bbls. from New York were offered yesterday by auction, but only 200 bbls. were sold at 11s. a 11s. 3d. *Turpentine*, no sales. *Rice* is also dull this week.

AVERY'S IMPROVED PLOUGH.

We certify that we have tried George D. Avery's Improved Ploughs, with his adjusting heel-pieces, and other important improvements, and are convinced that they are superior to any other ploughs we have ever seen. Avery's Ploughs not only do their work better, but are attended with but a small part of the expenses required by other ploughs to keep them in repair; therefore, we do cheerfully recommend them to all who may wish to purchase that useful implement.

Daniel Renner, *Samuel Young,*
John A. Chiswell, *Charles C. Jones,*
Cornelius Campbell, *David Cushwa,*
Thomas M. Maccubbin, *William Thornton.*

☞A constant supply of the subscriber's Improved Ploughs, warranted to be good, can be had, by applying to him, Dunbarton street, Georgetown, D. C., John C. English & Co., City of Washington, John W. Massey, Alexandria, or Allan Farquhar, Morefield, Harrison county, in the state of Ohio, and at Wheeling, in Virginia.

GEO. D. AVERY.

IMPLEMENTS OF HUSBANDRY.

The subscriber has on hand and offers for sale, a quantity of superior Grain Cradles, manufactured by David Little, of Gettysburg, Pennsylvania. Also, Mr. Little's celebrated patent Scythe Rifles, all of which will be warranted good. Likewise on hand, a full assortment of Gideon Davis' Patent Ploughs, Barshare and Coulter Ploughs, which he will warrant to be equal to any in the country. Steel lined and cast iron Cultivators, for the culture of corn and tobacco; Shovel and Substratum Ploughs and Harrows. Also, his patent Cylindrical Straw Cutter, which has never been equalled for its kind in any country; Brown's Vertical Wool Spinners, for family use, running six spindles, simple and efficient in its operation; Corn Shellers, Wheat Fans; patent spring Washing Machines; cast steel Axes, Mattocks, Grubbing Hoes and Picks, Shovels, Spades, &c. &c. And can furnish to his customers, Garden Seeds, raised by the Shakers of Berkshire county, Mass.

All the above articles will be sold on reasonable terms for cash. Communications by mail (*post paid,*) will receive prompt attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite the United Hotel.

P. S. Agents for J. S. Eastman, where gentlemen can leave their orders.

Messrs. Jona. Alden, Philadelphia.
Barr, Auchincloss & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C. & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savannah, Geo.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Inspections in the three State Warehouses the last week—428 hhds. Maryland; 35 hhds. Ohio, and 1 hhd. Pennsylvania.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .85 *a* .90—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—Corn, .31 *a* .35—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .40 *a* .50—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10½—Whiskey, in hhds. 1st proof, 21 *a* .21½—bbls. 22½ *a* 23—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.50; No. 2, 6.25; No. 3, 5.00—Bacon, hams, Balt. cured, .10; do. Eastern Shore, 12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 bbl.

Sales of corn yesterday, fair quality white, at 35 cts. The demand this week is rather greater than the last.

Marketing—Apples, bush. $1.00; Butter, per lb. .12½ *a* 25; Eggs, dozen, .10; Potatoes bush. .50; Onions, do. .50; Chickens, doz. 1.50 *a* 2.00; Beef prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6¼ *a* .7; Pork, 4.50 *a* 5.00; Green Peas, per bush. .50 *a* .75; Radishes, bunch, .2 *a* .3; Lettuce, large heads, .3 *a* 4; Cauliflowers, do. 25 *a* 37½; Carrots, .75; young Ducks, per doz. 2.50 *a* 3.00; young Lambs, dressed, 1.75 *a* 2.00; do. Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Strawberries, per quart, 18¾; Gooseberries, do. .18 *a* .20; Currants, do. .12½; Cherries, do. .10 *a* .12½; Raspberries, 18¾; Soft Crabs, doz. 1.00 *a* 1.25; Hard do. do 12½ *a* 18¾.

Hay, per ton, $9.00; Rye Straw, 5.50 *a* 6.00; Cut Grass, per bundle, .10 *a* .12½.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

AGRICULTURE OF NEW ENGLAND.

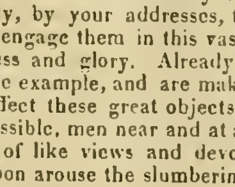
From the unpublished agricultural correspondence of G. W. Jeffreys, of North Carolina.

Pittsfield, (Massachusetts,) March 24, 1818.

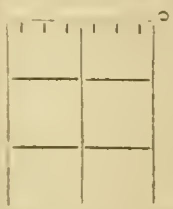
George W. Jeffreys, Esq.

Dear Sir,—Your valuable letter of the 4th of last month was received in due course, and I thank you sincerely for your attention to my request. I had long desired to know something of the state of agriculture in the south, and have read your letter with no ordinary gratification. I had some little knowledge of the condition of agriculture in the easterly and southerly parts of your state, from a young man whom I educated, by the name of Marshall Dickinson, who is settled at Greenville. On a candid view of the representation you make of your present condition, it is not bad, but pretty well, considering that for a century your rural affairs have been consigned to negroes and overseers. With such instruments, little or no improvements could be expected. I cannot but think they are the worst conductors of farming operations. They are too ignorant to notice carefully any event or occurrence, and they have no curiosity to examine and no interest to excite to inquiry. It is not strange that your agriculture should fall far behind that of Pennsylvania and the northern states. In our communities, the labour is performed by men of observation—men of some learning and a decided habit of inquiry—such as have motives to excite curiosity and stimulate them to mark daily occurrences. We too have our people of colour. In this town we have upwards of two hundred. They generally have some education and property—but after all are less productive and valuable than an equal number of whites. But other difficulties attend your situation. Your country is too extensive for the population. So long as [illegible] possess extensive domains, the shepherd habit will remain, and they will try to live with little labour and little regard to order, industry or learning. This is an inconvenience that has embarrassed us in the north, in times past. It will continue for some time to embarrass your settled purposes of improvement. Man is in his early existence a semi-savage, and is haunted with the Arabian spirit. Until the regions west and south of you are peopled, your operations must be slow. As soon as your own population begins to be dense, and attached to a local habitation and home, then our efforts at system and intelligence in managing your lands, will be accelerated and prospered. It is the density of population that renders agricultural products valuable; of course agricultural knowledge and improvement will in that state of society be most sought for and obtained. And it is that state that the proprietors of the soil become its lords, and attain to great distinction. The ideas emanated from your account of the fine country you occupy, and will tend to encourage you to perseverance. The time cannot be far off, when your population will be competent to render your rural occupations highly valuable and prosperous. You therefore do well, and merit and will soon command the best regards of men, by commencing such operations as you refer to, and in perseverance you will convert your country into such a state as will render your situation enviable. Your climate is more favourable than ours, and your soil probably as good or better, The only advantage we possess over you, consists in an excellent, well informed population, accustomed to labour and habituated to industry. I hope the time will come when events and arrangements, by common consent shall remove your black population to the shores of the ocean that washes the borders of western America. The present attempts to effect that great purpose, I hope will succeed. No doubt many among you doubt the expediency or wisdom of the measure. Such must be misled, either by avarice or a wrong estimate of the object. It is easy to demonstrate that by the introduction of another species of population, together with the habits and means which they possess for efficient operations, the advantages will be incalculably greater. The climate forms the only objection, as your planters observe, to the measure. This is imaginary. Men can be innured to any climate.—Nature has fitted man to inhabit every portion of the earth—nature will always gradually assimilate to every relation which the complicated affairs of social life require. In reference to the means of internal improvement, you mention that but one society is regularly organized among you. This may, indeed, be regretted, but is no subject of reproach to any private man—but it does fix much blame on those who have governed the state. It was their duty to watch over the general welfare, and from time to time lay before the legislature and people plans for improving the condition of the community entrusted to their care. Plans for originating discoveries, and for encouraging the arts and sciences, the agricultural, and manufacturing and commercial interests of the state, are subjects which should occupy unceasingly the care and protection of those who are called to govern. The neglect of these greatest of civil duties, places an immense responsibility at the door of a governor or president. If you can but succeed duly to impress your governors and senators on these subjects, you will not long want for societies, patronage and funds. Let your governors adopt for their model Governor Clinton and Governor Wolcott, and their legislatures, and North Carolina will not only commence a rapid improvement in her internal condition, but succeed beyond expectation, and soon find yourselves in possession of all the means of conducting a prosperous and increasing navigation and commerce. Permit me, sir, to press these considerations on your society. If you can succeed to excite a spirit of inquiry, it will be accelerated by the certainty of its rewards, and of the inexhaustible resources it will procure for public and private wealth—honour and glory. To this end you can never be better engaged than in a series of essays through your presses—by making these subjects the life of conversation, and by instituting shows annually, by which attention and curiosity will be awakened, and on which occasions you will have a fine opportunity, by your addresses, to enlighten *the people*, and engage them in this vast scheme of human happiness and glory. Already you, *as one*, have set a noble example, and are making the *proper efforts* to effect these great objects. Associate with you, if possible, men near and at a distance in the state; men of like views and devotion. Such a course will soon arouse the slumbering tenants of the earth, and awaken them to a view of their high destiny.

I observe, with interest, your description of ploughs, &c. Much depends on well constructed ploughs and harrows. Those built in Connecticut and sent off for sale, I have frequently seen, and generally are good. I believe you may procure them at New York of the best kind. In cultivating our Indian corn we sometimes use a small light plough, with two mould boards and a share with two wings. It answers a valuable purpose at second time hoing; at first hoing we frequently use a hand harrow, made thus—



The sides are, say 3½ feet long, and placed diverging, say 2½ feet from inside to inside. There is in the wide end of the harrow two straight handles like the old fashioned plough handles, with a peg towards the upper end of the handles of an inch diameter, for the man to hold the harrow and guide it. The harrow will require fifteen small sized teeth, say half inch square and eight inches long, sharp at the point. to cut the soil. The timber may be common slit work of hard timber, say four inches square—at the point of the triangle is a hole for a clevis and pin It is drawn by a single horse, which the holder may guide by a small rein or cord, or rode by a boy. This kind of harrow, I should think, would be greatly useful in your corn fields. It will do more work in a day than ten negroes with hoes. This harrow may be useful in every stage of the crop. It may be used on other grounds to cover seed; but for the purpose of tilling sward land or hard soils after once ploughed, we use another kind of harrow of larger size and larger teeth. It is quite as necessary as the plough, and in an easy soil produces a great effect in pulverizing and mixing the soil. This kind of harrow is drawn by one corner, with two horses. It is built about 4½ feet square, with 24 teeth; it consists of four sticks of timber of five by four inches, thus—



The two cross pieces are thin slats of an inch and a quarter, to be pinned, to steady the large pieces; but if your land is new and rough, with stumps, &c. it will be best to omit the slats and put another piece of timber at the open end. The teeth to be divided equally over the square. This harrow will cover six feet of ground when drawn angularly, and will reduce the soil rapidly, especially if you pass it twice over the same ground. The *seed harrow*, (so called,) to cover seed, is built in the same way, though only four feet square, of less sized timber, and same number of teeth. If the land is level and free from stumps and rocks, you may put two of these harrows together by a chain, either side by side, if the land is mellow, or if otherwise, to follow one after the other. I believe, sir, from these hints, you can build them to your liking—and I am strongly impressed that they will be most useful in working your soils. The teeth need not exceed an inch square, and twelve inches long for the large harrow—and the others in proportion.

The roller you mention of Mr. Melville's is an important implement to bury your seeds after the harrow, and especially on land intended for mowing. My roller, I believe, I have described to you heretofore. I think I was the first person who used one in Massechusetts. The roller is useful to roll down all winter crops, soon after freezing is past in the spring, to close the earth and bury the roots which the frost may have thrown up and exposed to decay under a hot sun. When once tried in this way, you will never omit it.

At the time I am writing this, (April 3d,) we have snow, and the earth is frozen, and our animals are confined to forage and potatoes. It is, however, the usual season for commencing ploughing. The snows, I perceive, have fallen among you so late as March 20. I suppose, one year with another, your spring operations have six weeks advance of us. We sow oats, peas, wheat, rye, and plant potatoes all this month and into May, and even to the 20th of May. Our harvest commences about July 20, and extends to August 20, about which time our hay getting is closed. Our autumn sowing is from September 1, to October 1. The two last seasons our wheat, rye, oats, barley and peas have yielded most bountifully. Many fields of wheat and rye have yielded from 30 to 45 bushels, and a few have actually had 50 bushels of rye to the acre. Potatoes yield from 200 to 400 bushels the acre. It is the most useful crop a farmer can raise. Barley and buckwheat, I have no doubt, will be an acquisition to your farming. I rejoice to hear that your interior communications are improving, especially that by the Danville. This is a most important and interesting subject to you, and all the states situated far in the interior. Congress have very properly entered on the consideration of the subject. It is deeply to be regretted that the President entertains doubts on constitutional grounds. about expending the monies of the general treasury for internal improvements. We very much doubt his correctness, and we anxiously hope that Mr. Clay and his friends may overcome these doubts, and introduce a system calculated to do equal justice to every state, and to secure these invaluable interests. I notice with pleasure your remarks on a former letter of mine on the succession of crops. In the nature of things my position is well founded, and warranted by experience. The case you mention is the exception to the rule. Your plan of preparing materials for manure by covering it with your ploughs under the soil, in preference to preparing it in yards, heaps, vaults, &c. grows out of the peculiarity of your climate and soil. Such is the heat with you, that the fermentation is rapid, and the decomposition in season to receive and aid the seed. On this subject you know there is a diversity of opinion, and each writer may be right, and differ from the other local experiments. So much depends on the soil and heat, that no fixed rule can be prescribed. In warm, wet, close soils, coarse materials for manure do well; nay better than good decayed manure; but in a warm, light sandy or gravelly soil, the best prepared manure will prove the most useful, and it will, one time with another, prove best in a climate where the warmth is various and short. In this latitude corn stalks will scarcely decay in two seasons. They answer no purpose, and are of no value out of the farm yard. They must be kept there and mixed with other materials to decay. In this climate, coarse manure will not answer for any of our crops but potatoes. Our Indian corn does best when planted on a well prepared compost manure. The reason is obvious: your season is two months longer than ours—of course there is time for coarse manure to decay, and for the corn to imbibe its salts. Our Indian corn is usually planted from the 10th to the 20th of May, and we hope to see it harden by the 20th of August, lest cool nights and frosts intercept it. Our Indian corn ears are small, compared with yours. We usually obtain 35 to 45 bs. to the acre. The stalks are small, and seldom exceed seven feet in heighth. The corn sits about 20 inches from the ground, and we usually plant it in hills not exceeding three feet apart, and so much in right lines that we can harrow and plough it each way.

The article of peas is, with us, much esteemed and cultivated. We have many kinds. Our best for using when dry, are the large green peas, which we like as well as early peas not dry. We have the large white pea—the large yellow pea, and several sorts of smaller peas, and very prolific. We sow them broadcast, at the rate of 2½ to 3 bushels the acre.

Your process for raising Indian corn is curious and particular. This mode of cultivation also grows out of your climate pretty much. The long and intense heat of your climate renders it necessary to economize your water, and to irrigate as much as possible. In this latitude we seldom suffer by heat, or drought. We sometimes have excessive rains; and usually too much cool weather. We seldom raise more than from 100 to 300 bushels of Indian corn. The crop here is precarious and expensive, and is going into disuse.

Labour in this country will average for the six summer months $60, and the six winter months $48. We board the man, and he clothes himself. The sensibility you manifest on the subject of neat cattle, is a pledge that they will be improved, and their condition ameliorated. Good pastures in summer, and plenty of forage in winter, with slight sheds to protect them, and a due selection of the breed, will soon advance these animals among you to a most estimable condition. The farmer's income may be doubled. With us, middling good dairy cows are worth from $25 to $30 a head cash—oxen from $70 to $120 a yoke. The price of good fat beef now, is from $6 to $8 a hundred. For several years past cattle and beef have gradually advanced, and the prices now are too high for general convenience. Butter is worth 20 cents a pound, and good cheese from 12 to 14 cents a pound. Sheep are pretty plenty and excellent. We have many Merinoes and we continue to manufacture fine and elegant broadcloths. I wish I could convey you a piece of fine blue cloth, that you might see how far we have advanced in manufactures. Our cotton and woollen manufactures are reviving considerably, and the prospect is favourable.

The management of a tobacco crop with you, is for trouble and expense, much like Indian corn here—the crop seldom pays the expense of cultivation. It is devoutly to be hoped that we shall soon see tobacco planting succeeded by wheat and other white crops, to the great comfort and profit of land proprietors. Good roads, and convenient and safe water conveyance, will have much effect in producing this change. In that event, the farmers may expect money from wheat and flour as readily as from tobacco, and with infinitely more benefit to the land.

You ask what use farmers make of corn-stalks in this quarter? Corn-stalks [he alludes to corn-tops] sir, here, are valuable for forage to give our milch cows and sheep. They are managed in this way—as soon as the Indian corn begins to harden, the tops stalks are cut at the joints beside the ears and laid down a day or two, and then taken up and bound, and put into small stacks to cure with a top sheaf on to secure against rain; after a few dry days they become cured, and then are housed or put into large stacks, and the tops secured by long straw. In this way they make much of our best forage. We now cut them fine by our straw cutters, which I heretofore mentioned to you; this process renders them of much more value. Our corn stalks are so sizeable and soft, that very little of them is lost; but if cut as above the animals eat them clean.

You again inquire what are our principal resources for manure? The first resource consists of our *barn yard contents*, composed of the refuse forage and cattle manure; this we never use the first season and not untill well rotted and decomposed. It is thrown into heaps, and there ferments and becomes a rich mass of decayed matter. It is carried out in autumn and placed in the fields, where it is to be used in large piles, so as to prevent washing and waste, and in the spring early, taken in carts, &c. and spread on the land. The yards are scraped clean, and thus made ready for new supplies. To this species we add *compost manure*, usually collected in June and July; by ploughing up the surface of the earth, and mixing it with ashes, dry or leached, and lime, all mixed and thrown into heaps to mature. We also use *alluvial earth or soil*, collected in low places—also *plaster and marls*. We are also beginning to use green crops, *particularly buckwheat* sowed thick, and when a foot high, turned in with a plough; then sowed again, and harrowed down with the furrow, and at a suitable time turned in again with the plough. This process will restore any of your lands, and fit them for a wheat or Indian corn crop. In all cases we prefer well rotted or decayed substances for manures. The obvious reason of this preference, is the shortness of the warm season, and their more active qualities and effects on vegetation. On the subject of orchards, we have several persons of skill and experience. This country abounds in apples, pears, plumbs, peaches, currants, gooseberries, cherries, raspberries, blackberries, strawberries, &c. In the Massachusetts agricultural papers, there are several on the planting and rearing of orchards. We have professed fruiterers or nursery men, cultivators of all kinds of fruit, for setting the trees. On Long Island, near New York, there are several extensive nurseries of fruit of every sort, proper for the United States.—Few of our farmers here are in the habit of writing much; yet they can do it if necessary; some of them have excellent orchards and fruit. If you will express to me particularly your wishes on this subject, I will procure for you an intelligent and correct epitome of information, that shall enable you to effect your purposes. I have as much and as great variety of fruit as you commonly find.—It was all planted and raised by myself.

On the subject of a dairy.—We have in this county the largest and best dairies in the United States. The Cheshire cheese is famous in the south as every where. I will do myself the pleasure of obtaining from some of the best managers, their manner of conducting this business. There is much written and well written among our agricultural papers. on the subject of dairies. Yet, sir, I fear no written instructions will enable an inexperienced person to manufacture good cheese; more depends on experience than any thing else. If you should, one or more of you, form a dairy establishment, I should recommend to send to the north for some young man and woman bred in a dairy establishment, to come and manage for you; I will, however, consult some persons of experience, and write you the result.

You inquire how long land is kept in grass before the green sward is ploughed up? We usually keep it in grass from 3 to 5 years if used for mowing; and for pastures longer, say 5 to 7 years. But, sir, the time depends much on how thoroughly the land was seeded, and whether the land was yearly mowed while *the grass was in blow, or had gone to seed*, and whether the pastures happen *to be fed closely and no grass left yearly to go to seed, and fall to supply new stalks.* If you allow your grasses every other year in mowing grounds, to go to seed and fall, and do not feed after mowing close, and do not suffer creatures in the spring to tread and bite the roots, such grounds will continue much longer. So with your pastures; every other year keep out your creatures until the grasses have gone to seed, and then turn in; the seed will fall sufficiently to continue the pastures many years. This direct management will save you from frequent ploughing and seeding. It is indeed the best course of management for good farming; but if your lands are not considerable and only sufficient to answer your necessary purposes, perhaps a more active, and somewhat expensive course will be expedient; and, in that event, you must plough and seed more frequently.

When land is taken into tillage, it is usually put the first season either to wheat, rye, or Indian corn—more commonly with wheat. It is common to turn it over the sward, harrow it smooth and [illegible] on the furrow, and plant it to Indian corn and potatoes.—The next season put it to wheat, using plaster, or compost or yard manure, and then put on the grass seed with the wheat. I am doing thus this season, and shall sow of red clover and herd's grass seed at least twelve bushels. The clover is worth $11 by the bushel, and the herd's grass $2 a bushel. We shall have this season under the plough. about [illegible] acres; this with us is considerable; but with you a [illegible]. If we had your length of season, we could do our tillage operations; but our time covers a little more than half your space. The summer season of course is a busy, most active and delightful scene.

I believe that I have now answered so far as proposed, all the inquiries made in your letter; how far they will prove useful and satisfactory to you, I cannot determine; I can only say, that I have intended to answer your wishes so far as experience and observation have enabled me. Whatever remains not sufficiently answered, shall be attended to whenever I again hear from you; I ought to have answered you before, but it has not been in my power as I am situated.

I have now sir, thrown on paper, in a desultory manner, much like a free conversation, my ideas relative to your inquiries, with such incidental remarks and suggestions as emanated from the subjects of examination. This communication is made in a plain and unlearned dress, which I prefer in treating on these matters. I hope it will give no offence to your discriminating mind and taste; I could pursue a different course if I saw it to be useful; what I have stated, I know; it is the fruit of considerable experience, and conformable to our climates and soils. Yet sir, I am far from believing that I have made novel disclosures; I have an impression that your inquiries and observations have anticipated most of what I have written; it may be useful to you as confirming doubtful points; and it may originate in a fruitful, active mind, reflections that may arrive at valuable results. If I should be so fortunate as to have answered any of these purposes, I shall be satisfied and happy. Before I close, I would again advert to the subject of manures, used in different stages of decomposition. You seem to be impressed, that coarse and undecayed substances, placed on the land, and covered with the plough, is to be preferred in your soils and climates. It may be so, provided the materials happen to be saturated with urine, and yard salts; unless they happen to be in this condition, I must doubt the utility of the practice. The atmosphere and dews and even rains, with much heat, have a decisive effect on decaying substances, and they acquire from these sources, strong impregnations of alkali. I am therefore inclined to believe, that under your state of the thermometer, the animating principle of vegetation would, with well matured manure, be more active and bring the crop to an earlier and more successful maturity; but nothing short of careful experiments will decide the preference. In England, they use much coarse manure, and think it best; but the practice is questioned. Their soils are generally very stiff and compact; they use such manure to loosen the soil and give it air; and they add great quantities of lime, to excite activity in decomposing these substances; the whole process there may answer; but it has never succeeded here. Sometimes straw spread on low meadow grounds, or uplands exposed to drought, has done well; but the practice is limited; hereafter, I hope to see more of your remarks on this subject—it will give me pleasure to read your letters, whenever you find leisure to write; and so far as my means and avocations permit, you will not cease to have in convenient time, the answers. I should like to send you some agricultural papers, if I could do it without subjecting you to expense—also, would send you specimens of our wheats, ryes, oats, barleys, peas, buckwheat, cucumbers, pumpkins, winter squashes, &c. I have a small quantity of fine summer wheat from China, which exceeds any wheat I ever saw—I shall soon sow it—when harvest arrives, I will let you hear how it does—can you point out a way by which I can convey things to you.

I am, sir,
With sentiments,
Of sincere esteem and regard,
Your obliged,
Humble servant,
THOMAS GOLD.

ORCHARD GRASS.

Our fathers, grandfathers, and great grandfathers never raised orchard grass; therefore we have never raised it, appears to be the only possible reason, why the farmers, particularly those who had stock, did not, half a century ago, cultivate this valuable grass. Very few of our farmers know it when they see it, and as to its valuable properties, they understand as little about them as they do about Hebrew.

Were it otherwise, and the benefits of this grass generally known, it would long since have been in general cultivation. To introduce it as a beneficial object to the notice of the farmer, is the design of this publication. One of the important benefits is, that it furnishes the earliest spring pasture, which may be continued till the month of May. Next, you cut it in June, and cure it for hay before it seeds; or you may let it seed, and save the seed something in the manner of saving timothy, only it is recommended that it be put into small sheaves and shocked in the field for eight or ten days, and carried from the shock to the threshing floor. In every stage, heating ought to be avoided, and even when threshed out and on the floor, when in a large quantity heating ought to be avoided by stirring. It will produce twenty, thirty, or forty bushels of seed to the acre; the lowest price is two dollars and fifty cents a bushel. The under hay is used either as fodder in the winter, or may be sold at so much a ton for packing china and other wares. It yields, like clover, a second crop, which makes good winter provender. A short time after the second crop is off, you turn your stock upon it, and pasture it till January. Again, it does not require rich ground to grow it. Nevertheless, like other grasses, rich ground will make the best hay, and produce most seed; but a soil not rich, will produce a better crop of orchard grass, than it will of timothy, particularly if clover be sown with it.—Another advantage: after the first year it will banish from where it grows, all foul weeds; and another conveniency attending it is, that after it has been once set, the farmer has little else to do with it, than for successive years to pasture it, and cure it for hay or seed. Farmers try it, and sow the seed thick.

Baltimore, June, 1828. M.

A VALUABLE COW.

Dowington, (Penn.) June 3.

Mr. Abner Baldwin, of East Caln township, has a small cow, supposed to weigh about four hundred pounds, with small horns, from which he has made, in one week, fourteen pounds of excellent butter; and feels confident that, in a week or two hence, when the pasture improves, he can make sixteen pounds per week! Considering the size of the cow, we are of opinion that she stands unrivalled as a butter maker.

HEMP AND CORN CULTURE.

Extract—See American Farmer, No. 8, page 59.

J. S. Skinner, Esq. *York, May* 5, 1828.

I received your letter of the 2d inst., and take the earliest opportunity to reply to it. I have had some conversation with Mr. Dritt again on the subject of raising hemp. He plants the seed in the same row with the corn, about two feet apart. The ploughing equally benefits the hemp and corn, sometimes a plant of hemp will grow out of the same hill of corn, and be productive. Mr. Dritt plants his hemp seed, in every other row of corn, so that the crop can have a sufficiency of sun and air. This was not mentioned in my communication, it would be well for you to insert it, if not too late. I believe I can give you an account of the whole process of cultivating hemp, and preparing it for market. I will also communicate to you our system of cultivating the vine, and the manufacture of wine: I am promised information from those who have been most successful in these pursuits. Mr. Eichelberger, my neighbour, whose vineyard has been noticed by you, and who cultivates the grape most extensively, will give me the desired information—all of which I will transmit to you when at leisure

HORTICULTURE.

ON THE CULTURE AND MANUFACTURE OF SILK.

Extracts from the Manual on the Culture and Manufacture of Silk, *prepared and communicated for the American Farmer, with remarks and notes, by a correspondent and practical cultivator.*

(Continued from p. 76.)

The whole of this chapter might have been compressed into a tenth part of its present compass Indeed the process of obtaining the eggs, is like all the other branches of this subject, extremely simple; but as I have given my mode in the notes attached to the first number of these extracts, I shall merely on this occasion refer the reader to them.

Hatching of the Moths, and their Preservation.

Cocoons, kept in a temperature of 66°, begin to be hatched after fifteen days: those kept in a heat between 71° and 73°, begin to come forth after eleven or twelve days. The room in which the moths are produced should be dark, or at least there should be only sufficient light to distinguish objects. This is an important rule, and must be carefully attended to. The moths do not come forth in great numbers the first or second day; they are chiefly hatched on the fourth, fifth, sixth and seventh days, according to the degree of heat of the place in which the cocoons are kept. The hours when the moths burst the cocoons in greatest number, are the three and four hours after sunrise, if the temperature be from 64 to 66°. The male moths, the very moment they come out, go eagerly in quest of the female: when they are united, they must be placed on frames covered with linen, and made in such a manner as to allow the linen to be changed when soiled. Much care must be taken in raising the united moths. They must be held by the wings, in order not to separate them: if this happens, they must be replaced on the tables of the moths of their own sex. When one small table is filled with moths in a state of union, they are to be carried into a small room, sufficiently airy and fresh, and which can be made very dark. Having employed the first hours of the day in selecting and carrying the united moths, the males and females which are found separate on the tables, are to be brought into contact, put on other frames, and carried into the dark room. It is easy to ascertain if there are more females than males. The body of the female is nearly double the size of that of the male; besides, the male which is single, beats about its wings at the least approach of light. The hour must be noted, at which the tables containing the united moths were placed in the dark room. If, after this operation is over, there still remain some moths of each sex, they are to be placed in a small perforated box, until the moment favourable for their union arrives. From time to time they must be looked at, to see if they separate, in order that they may be brought anew into contact. When any thing is to be done in the dark chamber, as little light as possible must be admitted, only sufficient to distinguish objects. The more light there is, the more moths are disturbed and troubled in their operations, as light is too stimulating for them.[*] The boxes are very convenient to keep quiet the males which remain, and thus prevent the fine powder adhering to their wings from flying about, and the destruction of their wings, and consequently, the loss of their vital power. The cocoons must be removed as fast as they are pierced by the moth; for being moist, they communicate their humidity to those which are still entire. The paper, also, on the trays when soiled, is to be removed, and fresh supplied. Constant attention is required during the whole day, as there is a succession in the process of hatching and union of the moths, which occasionally vary in relative proportion to one another. Instead of a frame, paper may be used for the purpose of receiving the eggs. A few good cocoons will not produce a moth, owing to their hardness, which prevents the moth from making a hole by which to come forth.

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[*] I have before observed, that my cocoons were ex-

Separation of the Moth, and laying the Eggs.

If there be an excess of males, they must be thrown away; if of females, males must be allotted to them, which have already been in a state of union. Great care must be taken, when the couples are separated, not to injure the males. The male ought not to remain united more than six hours.† After the lapse of that time, take the moth by the wings and the body, and separate them gently. All the males which are no longer in union, must be placed upon the frames; the most vigorous are afterwards selected, and united with those females which have not yet had a mate. Other vigorous males must be preserved in a separate box, and kept in darkness. When there is likely to be a want of males, let them remain united to the female, the first time only five hours instead of six. The females are not injured by waiting for the male even many hours; the only loss sustained is that of some eggs which are not impregnated. Before separating the two sexes, prepare, in a cool, dry, airy chamber, the linen on which the moth is to deposite its eggs. The following is the manner in which the cloth must be arranged: Six hours, as just said, is the usual time for the moths to remain united; for, in that time, the eggs of the female will be fully impregnated. It is also the general practice not to use the male for another female; but Mr. Delonchamps, already quoted, assures us that, in the event of having more female than male moths, the latter may be again used to profit. In the year 1824, he raised many worms from eggs, the produce of a sixth coupling, which were fully equal to those produced from eggs at the first.—The union continued never less than from 20 to 24 hours. The male, after a sixth union, appeared as lively and as brisk as at first, but he had no more females. The eggs, from even a thirteenth union of the same male with different females, had all the characters of those of the best quality. In these cases the disunion of the pair was, moreover, never spontaneous, but always required tu be effected by the hands.

A tressel is here referred to as represented in a plate. It is a frame, somewhat resembling the rafters of a house. It is between 4 and 5 feet high, and between three and four long. Two slats are attached across each side, and a narrow board nailed edgewise across each side 5 or 6 inches from the bottom. The manual then continues: Upon the tressel lay a cloth, so that it may hang equally on each side. The ends of the cloth must cover the boards below. The more perpendicular the lateral parts of the tressel are, the less soiled will be the cloth, by the evacuation of the liquid that comes from the moths. The moths which have been united six hours, are then to be gently separated, the females placed on the frame, and carried to the tressel and placed on the cloth, one over another, beginning at the top, and going downwards. Note the time at which the moths are placed on the cloth, taking care to keep those which are placed afterwards separate, to avoid confusion. The females that have had a virgin mate must be treated in the same manner as those which have been united with one that had been coupled previously five hours. The females should be left on the cloth 36 or 40 hours, without being touched. At this time, if it be observed that the linen has not been well stocked with eggs, other females must be placed on it, in order that the eggs may be equally distributed. When the heat of the room is 77° or 79°, or when at 63° or 65°, the eggs will be yellow, that is, unimpregnated, or of a reddish color, that is, imperfectly impregnated, and will not produce worms. The temperature of the room must therefore be kept between these extremes. Sometimes a female moth will escape from its mate before impregnation, and produce many useless eggs. Mr Swayne remarks, "that he had a cocoon of an orange color given to him, the moth of which happened to be a female. From this, by coupling with a straw-colored mate, were propagated all that he had of an orange colour. Hence he concludes that the colour of the silk depends chiefly upon the female." If this should be found a fact, we may have a rule whereby to avoid the orange coloured breed, which are not approved of, by choosing for eggs those female cocoons which are of a straw or white hue. The famale cocoons, as before noted, are generally larger than the males, and not so much pointed as they are, and are without the ring or depression in the middle, which commonly distinguishes the cocoons containing the latter.

Eight or ten days after the deposition of the eggs, the jonquil colour peculiar to them, will change to a reddish grey, and afterwards into a pale clay hue.—They are of a lenticular form, and on both surfaces there is a slight depression.

Preservation of the eggs.

Collect the eggs which have fallen on the cloth covering the shelves of the tressel, and put them in a box, in layers not more than half the breadth of the finger. The cloths raised from the tressel when quite dry, are tu be folded and placed in a dry room, the temperature of which does not exceed 65°, nor below the freezing point, 32°. If water does not freeze in the room, in a dish, leave the cloths there until spring*

During the summer, the cloths must be examined, to remove insects. To preserve the cloths always in fresh air, place them on a frame of cord, which should be attached to the ceiling, and inspect them every month.

There exists a notion that, every two or three years, the eggs should be changed. It requires little to be said on this egregious error. To suppose that the good cocoons of a cultivator, after a few years, are no longer fit to produce good seed, and yet that these cocoons can give good seed for the use of another, would be to admit a superstitious contradiction, which reason, practice, and science, alike condemn. A change of seed can alone be necessary when, from great neglect for a series of years of the worms, a diminutive race has been produced. Worms, properly treated, will never degenerate. "Good keep will always produce good worms.." On the subject of the degeneracy of silk-worms in the United States, the most positive information can be given.

Mr. Samuel Alexander, of Philadelphia, says, "From my own observation, I am convinced that silk-worms, cultivated in Pennsylvania, instead of degenerating, improve; proof of which I possess, in comparing the cocoon of four years since, with those of the last year. I can say with truth, the worms hatched from the eggs I brought from the south of Europe, produced annually better silk." The testimony of Mr. Sharrod McCall, of Gadsden county, Florida, is still more decisive. A sample of beautiful sewing silk, sent with his communication to the Secretary of the Treasury, was part of a parcel produced by worms, the stock of which he has had thirty years, and they were obtained from a maternal ancestor, who had possessed them many years before. During all this long period, no degeneracy has been observed. *Let proper care be taken of silk-worms, and no deterioration will take place.* The time has passed when the idle reveries of Buffon, Robertson, De Pauw, and others, respecting the tendency of nature "to be little" and degenerate every thing foreign in the new world, were received as truths. Facts, proud facts, demonstrate not only the gross absurdity of their positions, but the superiority of every American animal and vegetable, when compared with similar productions in the old world.

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posed to all the light of day, and that the moths received no injury from it. Indeed it is not easy to conceive how the moths could obtain this seclusion from light in a state of nature!

† This appears to me to be a most ridiculous *interference with nature.* It can certainly do no good, and must do some harm. The moths ought to be left to themselves and allowed to couple and to separate as they please. A gentleman last year followed the plan of separating the moths, and a few weeks ago a quantity of his eggs came under my observation; when I found that probably one third of them were *unfecundated!* This must always be the case when such a mode is practised. It is a fact, which does not seem to have attracted the notice of the writer of the Manual, that the moths couple several times; and of course, if they are entirely separated after the first coupling, many eggs will not be fecundated. I allow the males and females to remain together during the whole time, even of laying the eggs. I have no unfecundated eggs, nor have I found the least injury to be done them in consequence of the pursuit of this natural mode.

* I exposed silk-worm eggs to very cold weather, even to a temperature in which ice a quarter of an inch thick was formed in the room in one night, and they were not injured.

FRUIT TREES.

Dear Sir: *26th May*, 1828.

In mine of the 9th April, [an extract from which was published in this vol. No. 7, page 51,] I stated, as a singular fact, that but few of our fruit trees had then blossomed. It was doubtful, at that time, whether many of them would not die. They have continued to blossom in succession, ever since, and some are now in bloom. Their blossoms are quite sparse, and the leaves of many are only beginning to grow. That these trees which often bloom in February with us, and always in March, should have been so much retarded by the peculiarity of our winter, and that the warmest ever known, seems to me a phenomenon sufficient to attract the observation of the learned. If this extraordinary effect has been experienced in other states, I hope it will be stated, that it may be known how far the unknown cause may have extended its influence.

My anticipations of the destructive effects of our late frosts, have been fully realized.

Very respectfully, &c.

John S. Skinner, Esq. A. PICKENS.

N. B. I will thank any of your correspondents, to give the full pedigree of the famous Virginia race horse *Sir Hal.*

OLIVES.

On the 19th ult. we published a paragraph from the Darien Gazette, in which the editor acknowledged the receipt of a peck of native olives, said to be of as fine a quality as those imported from Sicily and Italy, with a remark that "they were the first he had seen in Georgia." We are now informed, on good authority, that "olives of a very excellent quality, have for several years been quite abundant on Cumberland Island, in the vicinity of Port S

Mary's, Geo. and that during the month of August last, many bushels of them were sold at the latter place, at seventy-five cents the bushel." This intelligence is gratifying. It adds another to the many evidences which have already been afforded, that the diversities of our soil and climate are capable of furnishing most of the luxuries as well as the necessaries of life, and that by a proper direction of domestic industry, we may render ourselves almost, if not entirely independent of foreign productions. It also suggests the advantage of more frequent experiments in agriculture than we are accustomed to make. We hope that the perfection which these olives have attained, may lead to their more extensive and profitable cultivation at the South; and that they may eventually supersede the demand for those of European growth. [*Georgia paper.*

RURAL ECONOMY.

CHEAP SPINNER.

Mr. John S Skinner. *Virginia, 28th May*, 1828.

Sir: I notice in your American Farmer, No. 7, vol. 10, a communication from a gentleman in Milledgeville, Geo. signed Fansh Carter, expressing a wish to know, if a spinning machine could be procured such as would answer family use. I also noticed in three or four previous numbers, a similar and anonymous communication, dated Harrisville, Kentucky. I now inform those gentlemen, and *southern planters* generally, through the medium of your widely circulated paper, I am in possession of a *family spinner and cotton carder*, designed solely for *family use*, being the fruits of two years labour to bring it to its present perfection. I cannot here with any propriety, use panegyric on the perfections of these machines, but their merits must force their way and become in general use. The spinner is now patented, and is thought to be as durable, cheap and simple, (if not more so,) than any machine now in use. Its probable cost will be something like the following:

A workman 3 days, at $1.33; from 6 to 12 steel spindles may be used, at 25 cents each; an iron crank 50 cents, being the only iron about it; wire and tacks 12½ cents. The right of using it will bear a proportion to the cost of making, which is intended to bring it within the reach of every poor family.

From six to eight cuts of cotton or woollen yarn, can be spun in a day, on each spindle; six have been done; a child of ten years old, black or white, is sufficient to work it, being done by the foot sitting on a chair. To adjust the quality of thread, is done by moving two pegs, spinning it from twine or cord to any degree of fineness wanting.

The probable cost of the cotton carding machine, will range from $20 to $30, and is equally durable and simple, moved by the foot also, with ease.—The speed is about equal in discharging rolls in a given time or number, to the common woollen carding machine. A model is now in progress for the patent office for this machine. Agents will be made in different states, and shall visit the southern states myself, as soon as practicable.

Gentlemen at a distance, desirous of having the use of either, or both these machines, will inform me of it. A complete drawing, with corresponding references, so as to render the whole perfectly understood, will be sent them, on condition of their enclosing $10 for both. Enclosed, I send you a copy verbatim, of three certificates presented, of the family spinners, which I would thank you to publish; some of the signers are well known at Washington city.

I am yours, &c.
WM. R. McCALL.

Vincennes, Sep. 1827.

We, the undersigned, citizens of Vincennes, have seen in operation, a spinning machine improved by Wm. R. McCall, called the "Family Spinner." So far as we are capable of judging, we think it an improvement over any machine we know of. We think a person familiarized to it, can spin treble the quantity that can be done on the big wheel; the machine is simple and easily worked, and is calculated to spin fine or coarse, as may be wanted.

Signed, JAMES SMITH,
SAML. SMITH,
D. S. BANNER, } *Merchants.*
WM. BUSTCH,
SAML. TOMLINSON.
N. SMITH, G. W. RUBLE,
FRED. WATSON, WM. TWIGG,
HENRY RUBLE, MARTIN ROBISON.
J. KEYKENDALL, M. D.
JOHN BODALETT, R. Land Office.

I do certify, that I have borrowed a "Family Spinner" of Mr. McCall, in order to try if any thing could be done with it Justice to Mr. M. and candour to the public, compels me to state, that the machine is a valuable acquisition to the public. I have learned to spin a good thread without much difficulty; something like 3 or 4 dozen per day; the machine is simple in all its parts, and easily worked, nor is it liable or can it get much out of order. So well am I pleased with it, I intend to have one—Upon the whole, I think Mr. M. deserves well of country for the invention. HENRY BARKMAN.

Nov. 27th, 1827.

We, the undersigned, have had six dozen yarn spun on Mr. McCall's "Family Spinner," and justice to him, and candour to the public, compels us to state, the thread spun is as good as any we have seen made on the big wheel; we have no hesitation in saying, the machine is no trick, but a labour saving one; we say candidly, there is less labour in using it, than on the common big wheel.

ELIZABETH BARKMAN,
MARGARET BARKMAN.

October 5, 1827.

LADIES' DEPARTMENT.

(From the American Journal of Education.)

EDUCATION OF FEMALES.

DOMESTIC MANAGEMENT.

The following practical suggestions are taken from the work on domestic education, mentioned in our last number. Several of the author's remarks apply more directly to the state of education in England; but the spirit and intention of the observations embodied in this article will admit of a useful application to all attempts at improvement in the instruction of the female sex.

"To that middling class of life, to which these thoughts are principally directed, there is no female accomplishments more valuable than housewifery. By that class it is sufficiently prized as an accomplishment? or wisely inculcated as a necessary branch of education? It is feared not. Few girls are regularly initiated into the various household duties; yet, to all girls, the knowledge of them is essential, since as wives, daughters, or sisters, all will probably have households to superintend. How extensive the mischiefs caused by ignorance of housewifery, we every day hear and see painful instances. The misery endured by the helpless untaught individual, in feeling her ignorance, and seeing the varied forms of evil that ignorance produces, must be most severe. Let not mothers wilfully condemn their daughters to sorrow, disgrace, and error, from which it is so easy to rescue them.

"The duties of housewifery being generally of an active and desultory nature, are usually very agreeable in the performance to active and variety-loving young people. They will, therefore, be cheerfully attempted and pursued, and we shall enlarge the pleasures of girls, by the same encouragement with which we prosecute their improvement.

"But there is one caution that must be undeviatingly regarded. In pursuing the superintendence of housekeeping, girls must act as the mild but respected *directors* of servants, not as their associates, confidants, and playmates. This rule can be easily enforced. Children should be taught to regard servants as *fellow creatures,*[*] as beings like themselves, prone to error, but capable of virtue. At the same time, they should be taught that, whilst they may love and pity those beneath them, and respect those above them, it is always most wise to choose their companions and friends, as much as possible, in their own rank:—on this principle, namely, that they may not learn to domineer over mean associates, nor cringe beneath great ones.

"This premised, the first lessons of housewifery should be practised under the eye of the mother.—At fifteen years of age, a girl will know enough of arithmetic to be ready at accounts, and will have sufficient judgment to reason fairly on what she observes. At that age she may occasionally attend her mother in her daily visit to the kitchen and the larder. Let her behold the arrangement of household business—the manner of giving directions—the plan of furnishing supplies;—she will thus gradually imbibe a clear conception of all such matters—she will understand the usefulness of method—she will find out the usual consumption of a family;—she may be taught, by *example*, to censure with mildness—to listen to reasonable excuses,—to be peremptory in just orders—to know what to expect from the industry, and what to pardon to the frailty of domestics.

"To avoid a dangerous association with menials, it would be advisable to bound the exertions of the *youthful* housekeeper to superintendence. Unless urged by imperious necessity, let not girls *assist* the labours of servants. It is money badly saved to make them perform any humble business, which for a few shillings, could be performed by a hireling.—The mother had better do it herself, if she cannot afford those few shillings, or dispense with smart clothing for herself or her child, to meet the expense, or be present when her child is so occupied.

"It is not from a sentiment of pride that this point is so earnestly recommended, but it is from a desire to check the dissemination of error. When a young lady and her maid are engaged together in some occupation, they must enter into conversation; now, of what nature must that conversation prove. The maid would not understand the wisdom, nor relish the morality, of her polite associate; but both maid and miss could understand, and we fear, both relish, the retailed news of the day—anecdotes of neighbours and petty scandal. By this power or communication both maid and miss are contaminated. The menial is encouraged in habits of espionage and scandal, and the mind of the young lady is irreparably vulgarized and poisoned. It were better she should perform the whole labour in the parlour or her own chamber, than that such a fearful risk should be run by association with a servant.

"The management of the breakfast and tea-table, will induce some knowledge of performing the honours of the mistress of a house. Occasionally, the whole arrangement of the house may devolve on the young housekeeper. At sixteen she may be invested in all the rights and duties of household superintendence. The mother may sometimes interfere with advice, but let the whole responsibility rest with the daughter, that thus, being thrown on her own powers, she may early learn judiciously to exert those powers. We have seen girls of sixteen very judiciously conduct household affairs; and, when mistakes occur, as occur they must to beginners, in all the offices and businesses of life, it is better they should occur under the paternal roof, where partial relatives are prompt to excuse and remedy, than in the first days of bridal management, when the agitated mind is full of the variety and novelty of its duties, and new friends and new kindred are less disposed to pardon and correct.

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[*] In the life of Mr. Edgeworth, published by his daughter, it is gratifying to read the retraction of some of that gentleman's severe strictures on servants.

"Great pains are taken to instil knowledge into the youthful mind: the memory is loaded with facts and morals, and the various branches of learning, in arts and sciences, are carefully taught. But, with this knowledge, and with this learning, it is necessary, at the same time, to inspire a resolution, and to induce a habit of bringing the acquired information into use. By reflecting on the traits of character, and the facts recorded in biography, many excellent maxims could be drawn for the conduct of life, and even our skill in any of the fine arts, and our familiarity in any of the abstruser sciences, might be made subservient to the purposes of domestic duty. A young lady, acquainted with the general principles of chemistry, could, with increased intelligence and precision, direct many of the domestic operations of a household; and, some knowledge of the laws of nature, (as developed in natural and experimental philosophy,) would tend to many useful results in the business of private life. So far from thinking it a degradation to use the information, obtained from such sources, to the purposes of household and domestic matters, it should be impressed on the young mind, that learning and wisdom are only valuable inasmuch as they are useful; and, as women have few opportunities of being of assistance in the higher walks of science, they will have little chance of being serviceable, except in the humble, and often not less important, labours of domestic life. Nor must they, like the hoarding wife, so ably depicted in the Idler, store up their treasures, without plan or prospect of bringing them into *daily* use, whilst anticipating future demand for the accumulated stock.

"'I do not inquire how much you have read and studied on the human powers; but I ask how you *exert* those powers?' This is one of many powerful passages in *Epictetus,* as rendered to us by Miss Carter."

SPORTING OLIO.

(Items from the Annals of Sporting, for 1828.)

A Curious Fox.

On Wednesday, the 6th February, the Duke of Rutland's hounds started a fox in the lordship of Granby, in the vale of Belvoir, and after a severe run of more than an hour, renard (on his return home, being hard pressed) entered the village of Barnston, near Bingham, where, mounting some corn-ricks, he gained the summit of a pretty high farm-house, and descended a chimney into a parlour, through the window of which he was seen viewing his pursuers! Upon the inmates of the house endeavouring to eject him from the apartment, he ascended the sable passage down which he had so recently made his ingress into the dwelling, he baffled all the arts which could be devised to displace him from his new station, until some straw was set on fire at the bottom of the shaft, when he reluctantly came down from his hold, and being seized by the huntsman, he was carried into the yard, and thrown amongst the hounds. The death halloo of the huntsman—the barking of the hounds—the shouts, the screams, and groans of the multitude, were distinctly heard at Whatton, a distance of nearly three miles, and no bounce.

Extraordinary Feat.

About the middle of March, a horse, the property of Captain O'Hanlon, whilst galloping at full stretch, in the vicinity of Cheltenham, is said to have covered in a single bound, the enormous distance of thirty-five feet and a half.

Pedestrianism.

On Friday, March 7, at Hampton, Greeves, (the Lancashire pedestrian,) who was matched for 100*l.* aside, performed, with ease, his unrivalled task. He was to hop seventy yards at twenty hops, in clogs, or wooden shoes, which he completed in fine style. The soles of the shoes were at least, two inches thick; and this feat exceeds, by nearly one yard, any thing that Jackson has ever performed publicly in pumps.

Distemper,

Or, as they are usually called, *epidemic diseases,* together with glanders, and other communicable disorders, may be rendered disinfectious by the use of strong chlorates of soda and of lime. These have been long employed in Paris, by the professors of medicine there, with complete success, simply sprinkling the apartments, or wards in which the sick patients reside with diluted chlorides. We owe to M. Lisfranc, chief surgeon of the hospital La Pitie, the developing of the disinfecting process, while M. Labanack has applied the same to stables with complete success. He recommends a bottle of concentrated chlorate of soda, mixed in a pail of water, to be applied with a brush to the racks, mangers, bails and partitions of the entire stable, twice; and in cases of long standing epidemy, the stable flooring is to be sprinkled with the same, a little more diluted.

Hydrophobia.

Means to be immediately used when bitten by a Mad Dog.—A correspondent requests us to state that Edward Gatacre, Esq. of Gatacrepark, Shropshire, attributes his recovery from the bite of a rabid animal to the use of the following recipe:—Wash the wound well with water poured from the spout of a teakettle or pump, and rub it with a linen rag tied upon a stick; when dry, put upon the wound as much gunpowder as would prime a gun, and set fire to it immediately; after which treat it as a common burn or scald.

Pedigrees of Thorough bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(Continued from page 86.)

54. **Jupiter,** (a son of the noted old Janus) bred by Capt. James Bell of Sussex, a fine bay, stout and strong, and remarkable for swiftness.

James Mason.
March, 1775. John Rives.

55. **Nimrod,** a chestnut horse, 15 hands and a half high, got by old Fearnought, out of a Partner mare, near whole blood. Richard Taliaferro.

Near Williamsburg, April, 1775.

56. **Romulus,** a beautiful sorrel, well formed and active, 4 years old this spring, was got by Mark Anthony, out of Pompadour, who was got by old Valiant on Jenny Cameron. Peter Dun.

Charles City county, Va. May, 1775.

57. **Syphax,** a beautiful bay, seven years old this spring, 15 hands 1 inch high, full blooded, being got by the noted horse Old Janus, out of an imported mare. John Walker.

James City county, Va., May, 1775.

58. **America,** a chestnut, near 15½ hands high. This horse was formerly called Gift, and bred by the Hon. Ralph Wormely, and was got by old Fearnought; his dam by Jolly Roger, his grandam by Dabster upon Mary Grey, an imported mare, remarkable for her speed. Augustine Willis.

Brunswick, Va. May, 1775.

59. **Regulus,** (Fitzhugh's) a very noted horse, beautiful bay, full sized and well marked. He was bred by the late Col. Baylor, and got by his imported horse Fearnought, out of the imported mare Jenny Dismal, who was by old Dismal—he won 1000 guineas sweepstakes, and 5 king's plates, without ever being once beaten. His sire was the Godolphin Arabian—Jenny Dismal's dam was got by Lord Godolphin's Whitefoot.

William Black.

Chesterfield, Va. April 13, 1776.

60. **Godolphin,** a beautiful bright bay, rising seven years old; stands at Mr. John Baird's plantation in Prince George's county, Va., and will cover mares at 5*l.* the season.

Godolphin was got by old Fearnought, and came out of Jenny Dismal, an imported mare.

N. B. [Godolphin is full brother to Regulus above.] Thomas Field.

April, 1777.

61. **Shakspeare,** a beautiful high blooded dapple grey horse; was got by Col. Baylor's Fearnought; his dam, imported, was bred by Mr. Hodgson, in Yorkshire, and was got by Cub, (a son of old Fox) her dam by Torrismond; her grandam by Second; her great grandam by Mogul; her g. g. grandam by Sweepstakes—Bay Bolton—Curwen's Bay Barb—Curwen's Old Spot—White Legged Lowther Barb—Old Vintner Mare.

Peter Priley Thornton.

Northumberland, April, 1776.

62. **Pilgrim,** four years old 16 hands high; was got by Yorick, the property of Col. Tayloe; his dam by Little Davie; his grandam by Old Traveller, out of Old Muslin Face, a mare imported into Virginia by John Morton, Esq.

April, 1777. W. Smith.

63. **Royal Oak,** a beautiful jet black, full 15 hands high, and rising nine years old. He was got by the noted horse Othello, (commonly called Black and all Black;) his dam was Dr. Maglather's Lovelace, a most beautiful mare, got by the famous Flying Childers, near the city of Annapolis; his grandam, an imported mare, by Lord Chatworth's Bosphorus. William Riddle.

Salem county, New Jersey, April, 1777.

64. **Young Ranter,** bright bay, near 15 hands high, well proportioned, four years old next June; was got by the noted horse Ranter, from a fine blooded mare. Thomas Dudley.

King & Queen, Va. Feb., 1777.

65. **Arabia,** near 15 hands high, stoutly made, of a bay colour; was got by Old Janus, from a fine bred mare, got by an imported horse.

Thos. Moody.

Cumberland on Appomatox, Feb. 1777.

66. **Gallant,** a fine bay, 16 hands high; was got by Fearnought; his dam, Stately, by Sober John, out of an imported mare.

Robert Baylor.

Near Orange Court House, Va.

67. **Shakespeare,** a dark brown, 15 hands high; he was got by Fearnought; his dam Stella by Shakspeare, in England, out of Cassandra, a high bred English mare. Robert Baylor.

March, 1777.

68. **Apollo**, a dark bay, strong and boney, of fine size; was got by Old Fearnought; his dam an imported mare by the Cullen Arabian; her dam was the noted mare called Lady Thigh, got by Griswold's Partner—Greyhound—Curwen Bay Barb, which mare was the dam of Sophonisba, remarkable for her high form and great speed. This pedigree of Apollo's dam was attested by his grace the Duke of Kingston.

March, 1777. Richard Elliott.

69. **Eclipse**, (Harris's) was bred by the late Col. Baylor, a beautiful bay, 15 hands 3 inches high, rising six years old; was got by Old Fearnought; his dam, an imported mare, by Shakespeare, in England. John Harris.

March, 1777.

70. **Badger**, a beautiful grey, and high bred horse, 15½ hands high; was got by Borphinis, a son of Habraham, who was got by Godolphin Arabian. Badger's dam was got by the famous Black and all Black; his grandam by Flying Childers.

Allen Jones.

Northampton county, N. C., Feb. 1777.

(*To be continued.*)

MISCELLANEOUS.

DEBT AND CREDIT.

I dislike the whole matter of debt and credit—from my heart I dislike it; and think the man who first invented a ledger, should be hung in effigy, with his invention tied to his feet, that his neck might support him and his works together. My reasons for thus sweeping at the whole system is, not that I believe it totally useless, but that I believe it does more mischief than good, produces more trouble than accommodation, and destroys more fortunes than it creates honesty. These opinions are not of a recent date with me; they are those upon which I set out in early life, and as I grew older I became more and more confirmed in them, not that I changed my practice while I held fast my professions and got my fingers burned at last by trusting my name in a day book. Nor did I do this because I could not see the evil effects of credit around me in every shape and form.

And a visit to my old friend Timothy Coulter, called the subject up so forcibly, that I concluded to write a line on it. His last cow was sold by the constable this very morning for six dollars, though she cost him sixteen, and they have not left an ear of corn in his crib, or a bushel of rye in his barn, much less any of his stock—it was what is called the winding up the concern; and he is now on his good behaviour, fur I heard one of his creditors say, that if things did not go on very straight, he would walk him off to the county prison ship. Thus has ended Timothy's game of debt and credit. When he first commenced farming, he was as industrious and promising a young man as was to be found; he worked day and night, counted the cost and pondered on the purchase of every thing. For a year or two he kept out of debt, lived comfortably and made money; every merchant that knew him was ready to make a polite bow—each knew him as one of your cash men and liked his custom. The mechanic shook him by the hand, and begged his company to dinner, hoping to get a job from him: and even the lawyer, in contemplation of his high character, tipped his beaver, as he passed him, with a sign as much as to say, Tim, you have more sense than half this world, but that is no consolation to us.

By some fatality, however, Timothy found out there was such a thing as credit. He began soon to have many running accounts and seldom paid for what he got; it soon followed, that the inquiry, 'do I really want this article!' before he bought it was neglected; then the price was frequently not asked; then he began to be careless about pay day; his accounts stood—he disputed them when rendered—was sued, charged with cost, and perhaps, slyly, with interest too, and he became a money borrower before long; but his friends after a lawsuit had brought them their money were ready to pay. The same farce was played over and over, until now the end of these things has come, and poor fellow he is turned out in the wide world without a friend, save a wife and six miserable babes.

I asked the constable for a sight of the execution, and he showed it to me. It was issued by young squire Bell, and I could not but recollect how different was the history of this man to that of Timothy. Young Bell was a poor boy—commenced this life with nothing but health and a trade—but he adopted as a sacred maxim, 'pay as you go?' and he frequently told me, he found little difficulty in sticking to his text. The necessaries of life are few, and industry secures them to every man; it is the elegancies of life that empty the purse—the knick knacks of fashion—the gratification of pride, and the indulgence of luxury, that makes a man poor. To guard against these some resolution was necessary; and this resolution is much strengthened and guarded by the habit of paying for every article we buy at the time. If we do so, we shall seldom purchase what our circumstances will not afford.

This was exactly the manner in which Jack Bell proceeded. Habit, strengthened by long continuance, and supported by reason, became second nature. His business prospered; his old purse became filled with Spanish dollars; all his purchases being made for cash, were favorable, and by always knowing how he stood with the world he avoided all derangement in his affairs. He is now the squire of a village, with good property, a profitable business, and the respect of all who know him. [*Northern Star.*

Want of a Point, a nice Point.

An ingenious expedient was devised to save a prisoner charged with robbery in the criminal court at Dublin. The principal thing that appeared in evidence against him was a confession, alledged to have been made by him at the police office, and taken down in writing by a peace officer. The document purporting to contain this self-criminating acknowledgment, was produced by the officer, and the following passage was read from it:—

> "Mangan said he never robbed but twice
> Said it was Crawford."

This it will be observed, has no mark of the writer's having any notion of punctuation, but the meaning he attached to it was, that

> "Mangan said he never robbed but twice:
> Said it was Crawford."

Mr. O'Gorman, the counsel for the prisoner, begged to look at the paper. He perused it, and rather astonished the peace officer by asserting that so far from proving the man's guilt, it clearly established his innocence. "This" said the learned gentleman, "is the clear and obvious reading of the sentence:

> " 'Mangan said he never robbed:
> But twice said it was Crawford.' "

This interpretation had its effect on the jury, and the man was acquitted.

Loading Hay in Chili.

A writer in the Christian Spectator, who has spent several years in Chili, (or Chile) remarks that almost all substances from the earth and sea, are transported on the back of mules in that country. Hay is wholly brought to market in that way. A man mounts his mule and stands erect, while a second throws him up small bundles of long green hay, which he places round him as our hay makers load a cart. When the mule is so laden that nothing but his long ears and the owner's head are visible, he is brought to the city, where the rider sells to one and another until his load is gone.

Long sticks of timber are brought to market on mule-back, one on each side of the animal. They are crossed and lashed two together on the saddle; the lower ends drag on the ground behind, and sweep the whole street.

Vitiated Atmosphere from Vegetation.

As the spring advances, and vegetation puts on its attractive garb, it may be proper to caution our readers against the too general custom of allowing geraniums and other ornamental green house plants, to vegetate in confined rooms in dwelling-houses. The process of vegetation destroys the purity of the air in a remarkable degree, by absorbing the oxygen of the atmosphere, and giving out this refuse carbon, or *feculæ* of the plant to the surrounding air. The odoriferous plants, though agreeable to the olfactory nerves, are even more deleterious than any others, from the gaseous carbon evolved in the form of aroma. Apartments in which any kind of plants are allowed, ought, therefore, to be constantly ventilated, both for the purpose of respiration, and for the health of the plants. [*Verulam.*

Expansive Force of Steam.

A circumstance lately occurred, rather of a singular nature, which strongly illustrates the powerful effects of steam. A strong stone bottle, half filled with water, and tightly corked, was placed by a servant girl in an oven and forgotten. The water of course began to be converted into steam (by the heat of the oven) which burst the bottle, and was so expansive as to drive the oven door, which was of cast iron, from its hinges, against the kitchen wall, with such violence, that it was broken into several pieces. The oven itself though of considerable weight, was carried from its seat, blew out both the kitchen windows, and tore down the fire place. Several children were playing in the kitchen, but they fortunately escaped injury.

[*English paper.*

Insect Labours.

There are buildings by animals far inferior to man in the scale of creation, many times more vast, of proportion, than his mightiest labours. The cube in one of the African ant-hills is five times larger than that of the great Pyramids of Egypt, in proportion to their size. These (Sweetman says) they complete in four or five years; and thus their activity and industry as much surpass those of man, as St. Paul's Cathedral does the hut of an Indian. These ants are again exceeded by the coral insect of the South Seas, that raises islands out of depths almost unfathomable—what lessons for human pride and human power!

The Ape.

An ape, which Blumenbach observed for more than a year together, would manage the wood for a stove, and put it in with as much judgment and economy as a cookmaid. He was very fond of the fire, like all apes, and would at times singe himself, and afterwards roll in the snow, and then return to the fire. He was often at the college, where he used to examine the specimens with a most laughable imitation and grimace. Once he swallowed a piece of arsenic, large enough to poison ten Kalmucks; it only produced a violent diarrhœ, and he was quite well again. But once a work on insects was laying on the table; this fellow had studied it with great gravity for an hour. When —— came into the room, he found that he had, with great address, pinched out all the beetles of the great plates and eat them, mistaking the pictures for real insects.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 27, 1828.

☞ The Members of the Maryland Agricultural Society, are requested to assemble at the office of the American Farmer, on Friday the 27th June, at 4 o'clock, P. M. to take such measures as they may see proper to adopt, in reference to the grand procession to be formed on the 4th July.

MARYLAND AGRICULTURAL SOCIETY.

June 19, 1828.

A stated meeting of the Trustees of the Maryland Agricultural Society, was held this day at Hunting Ridge, the residence of James Swan--present ten members, the Recording Secretary, and Treasurer.

A scale of premiums for the next exhibition of the Society, was presented by the committee appointed for that purpose—which being read and considered, was finally adopted, and is as follows, viz:

CROPS.

For the best 5 contiguous acres of Wheat, yield not less than 30 bushels per acre,	$10 00
For the best 5 contiguous acres of Indian Corn, yield not less than 60 bushels per acre,	10 00
For the best 5 contiguous acres of Rye, yield not less than 30 bushels per acre,	10 00
For the best 2 contiguous acres of Hay, weight to be ascertained at least one month after cutting,	10 00
For the best acre of Potatoes, not less than 200 bushels,	10 00

HORSES AND MARES.

For the best thorough bred Stallion, pedigree properly authenticated, to be produced and left with the society for publication,	15 00
For the best Stallion adapted to get stock for the saddle,	15 00
For the best Stallion adapted to get stock for quick draught,	15 00
For the best Stallion adapted to get stock for slow draught,	15 00
For the best thorough bred Brood Mare, pedigree as above,	10 00
For the best Brood Mare adapted to the saddle,	10 00
For the best Brood Mare adapted to quick draught,	10 00
For the best Brood Mare adapted to slow draught,	10 00

ASSES AND MULES.

For the best Jackass,	10 00
For the best Jennet,	10 00
For the best pair of well broke Mules raised in this state,	10 00

NEAT CATTLE.

For the best bull over 2 years old, full blood improved Durham Short Horn,	15 00
For the best bull over 2 years old, full blood Devon,	15 00
For the best bull over 2 years, of any other breed,	15 00
For the best bull under 2 years old, of any breed,	10 00
For the best Milch Cow of any breed,	15 00
For the second best do. do.	10 00
For the best Alderney Cow,	10 00
For the best Heifer of any breed,	15 00
For the second best do. do.	10 00
For the best grass-fed Bullock,	15 00

SWINE.

For the best Boar over 1 year of age,	10 00
For the best Boar under 1 year,	5 00
For the best breeding Sow,	10 00
For the best Sow Pig,	5 00

SHEEP.

For the best fine woolled Ram,	10 00
For the best pair of fine woolled Ewes,	10 00
For the best Southdown Ram,	10 00
For the best pair of Southdown Ewes,	10 00
For the best Dishley Ram,	10 00
For the best pair of Dishley Ewes,	10 00
For the best Ram of any other breed than the foregoing,	10 00
For the best pair of Ewes, do. do.	10 00

DOMESTIC MANUFACTURES.

For the best piece of Carpeting, not less than 20 yards, the wool whereof to be raised and spun on the farm of the candidate,	8 00
For the best piece of Kersey adapted to lâbourers, not less than twenty yards, as above,	5 00
For the best piece of Shirting, of any materials, not less than twenty yards,	5 00
For the best piece 8-4 linen Diaper, not less than 15 yards,	5 00
For the best Hearth Rug,	4 00
For the second best do.	3 00
For the best and handsomest 10-4 woollen Counterpane,	4 00
For the second best do. do.	3 00
For the best pair knit woollen Hose, full size,	2 00
For the second best do. do.	1 00
For the best pair cotton Hose, full size,	2 00
For the second best do. do.	1 00
For the best pair thread Hose,	2 00
For the second best do.	1 00

FERMENTED LIQUORS.

For the sample of the best Cider, pure juice of the apple,	10 00

BUTTER.

For the specimen of the best fresh Butter, not less than 3 lbs.	10 00
For the specimen of the best preserved Butter, three months old, not less than five pounds,	10 00

Resolved, That the President name a committee to make arrangements for, and to decide upon what day in October next, the Exhibition and Cattle Show shall be held—when,

John S. Skinner, James Carroll, Jr., and Samuel W. Smith, were appointed said committee.

Adjourned to meet on Thursday, 24th July, at Dallton, the residence of Doctor Allen Thomas.

At Orange Farm, two miles from Baltimore, may be seen a pump worked by a small pointer dog.—This pump is more than fifty feet in length, and the working of it was heretofore the fatiguing labour of two men. To the dog it is mere play. He, at his pleasure, either walks, trots, or lies down.—When only walking, there is a sufficient discharge of water for all the purposes of a dairy. The water never ceases to flow, but during the very short intervals, when the dog may be lying down. From its thus flowing, it has become very cold and sweet; and it is thence believed, that the water of most pumps would be thus greatly improved.

The principal benefit, however, held out to the community from this apparatus, is that every farmer may have, at the most convenient place, near his house, a dairy as complete as if he had a good spring on the identical spot. The water from the pump, will, indeed, be more abundant, and generally much colder than water from a spring.

The dog, to be kept in motion, requires not the attention of any person; all that is necessary, is occasionally to give him a drink.

The pointer has been selected only on account of his sprightliness.

This apparatus costs only about 35 dollars, and therefore it is within the reach of every landholder. It may, moreover, be erected not only by all in the country, but by many in our cities.

INQUIRY.

A correspondent wishes to know through the American Farmer, which is the best kind of thorns for hedges—what they cost per rod—where they can be purchased—and what is the best season for planting them?

LIVE STOCK.

Gentlemen farmers who wish to improve their stock, can be furnished with the following kinds, viz.—Two fine Bulls, of four and five years old each, together with a number of Calves, male and female, of the full blood *Coke Devons.*

Also, a few Lambs, male and female, descended from my late imported Saxon sheep, all warranted pure, and the best of their kinds. To save trouble, the price of the Bulls will be $100 each; and of the Calves and Lambs $50 each. WM. PATTERSON.

Baltimore, June 26, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

There is little or no variation since last week in our tobacco and grain markets, and but little doing. Harvest has generally commenced, and we learn the crops of wheat generally are much injured by the rust. From Virginia, we learn that wheat crops will be very short, in consequence of the depredations by the fly.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-st. 4.75 *a* 4.87½; city mills, 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .85 *a* .90—best white wheat, .95 *a* 1.00—ordinary to good, .80 *a* .85—Corn, .34 *a* .35—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .40 *a* .50—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .8 *a* .9½—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—N. Car. .9 *a* .10½—Geo. .9 *a* .10¼—Whiskey, in hhds. 1st proof, 21 *a* .21½—bbls. 22½ *a* 23—Wool, com., unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.50; No. 2, 6.25; No. 3, 5.00—Bacon, hams, Balt. cured, .10; do. Eastern Shore, 12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 bbl.

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AGRICULTURE.

ON CLIMATE.

John S. Skinner, Esq.

I have read carefully the 7th letter of Agricola, which you had the kindness to put into my hands. This letter headed "On Climate," contains numerous quotations in proof of an amelioration of climate from the removal of forests. It is singular, that the writings of the Abbe Rosier have been so little noticed in either Europe or America. That able writer in his *Cours d'Agriculture*, has demonstrated, that as far as the climate of France is concerned, the seasons have become more severe. In order to place this controversy on grounds which are tenable, I herewith remit you a copy of a lecture I have frequently given on the general subject of climate. It is true of climate, as of any other object of science, to judge soundly of it, you must collect and compare the elements. Whether I have been successful in convincing others, I cannot say; but I have fully satisfied myself, and I see I am borne out by so great a name as Baron Humboldt, that if any changes have been made on the climates of the earth, within the scope of history, they have been made on the side of *increased cold;* but in reality, it appears to me from all the data I have ever been able to collect, that no *great permanent changes of atmospheric temperature are possible.* As to the ancient Roman writers, their testimony on this subject, when duly weighed, really determines but little. Coming from the mild and temperate climate of Italy, into the northern provinces of Gaul and Germany, it was natural for them to regard the winters as severe, as indeed they remain to be so in modern times. Within the last 300 years, the Baltic has been traversed frequently by armies. In 1709, the Gulf of Venice was frozen; and in 1762, the olive trees were destroyed along the Mediterranean coast of France.

Your paper appears to be a most suitable vehicle to convey such views to the public: and should the paper I have transmitted meet your approbation, I hope to follow it by another containing an historical view of meteorology.

[The following chapter on Climate, is from the able letters of Agricola, on the principles of vegetation and tillage, written for Nova Scotia, by John Young, Esq. the Sir John Sinclair of that Province.]

Man in his individual capacity, is a weak and evanescent being. The effects of his power are confined to the small portion of matter on which he acts: and the physical laws of the universe are beyond his control. Such is his feebleness in fact, when contrasted with their mighty operations, that he seems rather subjected to their agency, than capable of ruling or directing them. Viewed in his collective capacity, his power swells into importance, and causes effects, which, while they astonish the imagination, gratify his vanity; and in nothing are they so apparent as in his having cleared and embellished the earth, that he might render it the source of his subsistence, the place of his residence, and the theatre of his glory. On it he has levelled the mountains, and filled up the vallies, he has subdued the wilderness, and tamed its savage inhabitants; he has constructed canals, aqueducts and bridges; he has piled up the pyramid and pointed the obelisk; he has reared monasteries, villages and cities; and although he could not resist and struggle against the laws of the material world, he has rendered them subservient to his use. Indeed, without his presiding industry, these laws are apt to run riot, and waste themselves in a useless and cumbersome profusion. The trees of the forest thicken and embower, till the face of day is hidden from his sight; the brambles and shrubs entwine on the surface, and present to him an almost impervious barrier; the the waters stagnate in marshes, at once destroying the salubrity of the air, and the fertility of the ground; and the useful plants are scattered at random, spring up by the side of obnoxious weeds, and with difficulty are collected and propagated for the convenience of social life. Such is the picture of all rude countries, not inhabited by men, long and considerably advanced in arts and industry.

The changes which are effected on the face of the globe by the plastic hand of human application pursued through a succession of ages and generations, are much more wonderful than we are apt to imagine. An old settled country, smiling in all its richness and verdure of corn fields and meadows, has very little resemblance to its original state either in its geographical features, or in its climate. The Hercynian forest, which reached from the source of the Danube along its left bank to an immeasurable and unknown distance, traversing the whole of Germany till it touched the Euxine, and then starting off and plunging into the wilds of Siberia, has not left one trace of its limits except on the page of history; and the Ardenne,* which in the time of Augustus embraced France like a girdle, has been entirely cut down, with the exception of a few remaining patches at Thionville; and the ground, which both overshadowed, is now thickly studded with chateaus, hamlets and cities. I shall not, therefore, be able more effectually to fulfil the promise made last week, of demonstrating that the state of cultivation materially affects climate, than by appealing to history to prove, that in Europe and Asia, a mighty alteration has been produced since the first authentic account of these countries. If we shall find on examination, that in those regions lying within the 40th and 50th degrees of north latitude, winter reigned with a severity now totally unknown, that fruits and plants in these days grow abundantly where they would not thrive 2000 years ago, we shall establish, beyond all controversy, the influence of cultivation upon climate.

Herodotus the father of history, informs us, that on the north shores of the Black Sea, and round the ancient Palus Mæotis, the duration of winter was for eight months, during which the ground was entirely buried in snow; and that all the countries beyond this line were accounted uninhabitable. Ovid, who was banished to the banks of the Euxine, describes the severity of the weather as insupportable; and distinctly states, that he crossed the Black Sea upon the ice, and that he saw oxen and carriages frequently passing—a circumstance, which we would esteem fabulous, were it not confirmed by other concurrent facts and testimonies. The ancient historians unite in asserting, that all the lakes, marshes and rivers of Gaul, Germany, Thrace and Dacia were every winter frozen over to a great depth and presented a firm footing to the hordes of barbarians on which to rush down and pillage the southern provinces. Diodorus Siculus, Strabo, P. Mela, Seneca, Pliny the naturalist, Herodian and Justin are unanimous in delineating these countries as of horrid feature, and under the dominion of ice and snow the greater half of the year. Their accounts are so inapplicable to these now fair regions of the earth that had they not specified the rivers and seas by name, we would have been mistrustful, and supposed them engaged in the description of the inhospitable climate of Lapland or Siberia. Virgil is so distinct on this head, and is, besides, an author in every body's hands, that it may be only necessary, in order to avoid all parade of Greek and Latin quotations, to rest the facts upon his simple attestation. He is contrasting the shepherd life on the plains of Lybia with what it is round the sea of Asoph, on the banks of the Danube, and at the foot of Rhodope—a mountain in Thrace,—places situated between the 40th and 48th degrees of latitude, and exactly corresponding with the parallel of Nova Scotia.

> * At non, quà Scythiæ gentes, Mæoticaque unda,
> Turbidus et torquens flaventes Ister arenas:
> Quàque redit medium Rhodope porrecta sub axem:
> Illic clausa tenent stabulis armenta; neque ullæ
> Aut herbæ campo apparent, aut arbore frondes:
> Sed jacet aggeribus niveis informis, et alto
> Terra gelu latè, septemque assurgit in ulnas:
> Semper hyems, semper spirantes frigora Cauri.
> Georgics. Book iii. line 349.

He proceeds in the same passage to describe their manners and habits, and they will be found much more akin to those of the Esquimax than to the European nations now occupying that delightful tract. "They live, he says, in caves dug deep in the ground, and clothe their bodies with skins and furs. They catch the deer, not with hounds let loose, nor with toils and nets, but sinking in the yielding snow and incapable of escape. Their garments stiffen on their backs, and the icicles hang from their beards; even the wine, which they drink, is distributed in frozen masses, and cut with their hatchets." Those, who are curious and versed in Latin, may consult Cæsar's Commentaries; and a crowd of facts, incidentally mentioned by that historian, will be found to coroborate the previous accounts. In his second expedition to Britain, he stopped in the midst of his conquests, that he might reimbark his army, and return to Gaul before the autumnal equinox; so much dreaded was the approach of winter, and so hazardous the navigation, though at that early season of the year. At another time, when he attacked the Helvii, he crossed the mountains of Cevennes, in the south of France, which were covered with six feet of snow and esteemed impassable. His appearance before the enemy was quite unexpected, as they always thought themselves safe from invasion during the depths of winter."(A.)

"But this is not all.—Climate is determined no less by the vegetable and animal productions, which are found in it, than by the unequivocal testimony of history. Columella, in the reign of Claudian, is the first writer, who speaks of the culture of the vine in Gaul; and he infers from this and other facts, that the climate of those days was ameliorating. "I find that it is the conviction of many valuable writers," says he, "that the state of the atmosphere changes in a series of years: for Saserna, in those books which he has left us upon agriculture, concludes that the atmosphere has undergone some change, because certain districts which formerly were incapable of producing vines and olives on account of the severity of the winter, now begin to yield abundance of wine and oil, from the climate having become milder and warmer." Diodorus Siculus and Tacitus agree that the intensity of congelation in Pannonia and Thrace, in Gaul and Germany, was such as to render doubtful the culture of vines and olives, and any kind of fruit trees; and that to preserve them during winter, they covered up their roots with dung—a precaution now totally useless in the three first countries, and only practised in the northern parts of the last.

The animals too, which inhabited these parallels during the period now under review, clearly prove, not only the uncultivated state of the country, but the severity of the climate. The Elk, the Buffalo and the Unicorn, were found in the Hercynian forest, and some are of opinion that the Reindeer frequented this illimitable wilderness. Pausanias the geographer expressly states, that in Thrace there were white bears and swine even in his day—animals which have now abandoned all the warmer climates of Europe, and retreated into the desolate and icy wastes of the arctic circle. These collected facts and concurrent testimonies will bear us out in the conclusion, that the whole country from Spain to India lying between the 40th and 50th parallels were about 2000 years ago nearly in the same situation with respect to climate as the corresponding places now are in North America. (B)

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* Ardenne was a common name expressive of a forest among the ancient Celtæ, but the largest and most widely extended, retained it by way of distinction. The one alluded to in the text has impressed this name on its site to the present day: and was so vast as to range for 500 miles across the country of Gaul.

* "But not so is the climate, where dwell the Scythian nations, where flow the waters of the Palus Mæotis, or the turbid Danube whiling along his yellow sands, or where Rhodope bends round stretched under the Polar axle. There the herds remain shut up in their stalls; for there are no herbs on the plain, nor leaves on the trees. The earth without form lies buried under a heap of ice and snow, which rise to the height of seven ells. There reign always winter and the north winds breathing frosts."

A.

It may well be questioned whether writers on so grave a subject as the climate of a new country, should quote and rely on mere poetic description, as recorded facts. It is time that the true valoe of *facts* in inductive reasoning, should be felt. In respect to the statements in Cæsar's Commentaries, they are to be depended upon as facts, as far as they go, but amount to no more, than that the winter when the event transpired, was one of those very severe seasons, which may be found recorded in Rees' Cyclopedia, article frost, and of which the following are a few examples.

A. D. 508. Rivers in Britain frozen two months.

558. Danube frozen.

695. Thames frozen six weeks—booths built on it.

759, 827, 859, 908, 923, 987, 998, were all remarkable in Europe for intense frosts, and in 1035, a destructive frost occurred on Jone 24th.

1063, 1076, 1205, 1407, 1434, 1645, 1683, were all severe seasons, and in 1709, the Baltic, Adriatic and Bosphorous, were frozen. Since 1709, the winters of 1715, 1739, 1742, 1747, 1754, 1760, 1762, 1776, 1779-80, 1795, and some others, were intensely severe.

B.

How far the possibility exists or ever did exist, of the climates of such a range as that from Spain to India, ever assimilating among themselves, will be seen by a careful perusal of the geographical sketch I have sent for publication.

The writer of these quotations ought to have been put on his guard in respect to the inferences he has drawn, from the subsequent extract from Columella, who it appears had precisely similar ideas on meteorological melioration, about 1800 years ago, and no doubt with just about as good evidence of correctness.

If we for a moment discard systems and resort to facts, it becomes demonstrable, that most of those assumptions respecting change of climate are formed from very inadequate elements. To set out right is a pre-requisite in any attempt at obtaining the object of our researches, and in that respect, Agricola in his notices of climate, seems to have acted on sound philosophical principles. He adduces difference of level, and exposure as the general cause of difference of climate along the same latitude, and so far a firm base was laid for rational theory. but yielding to a *fond wish*, great atmospheric revolutions are supposed to have taken place where the permanent objects in nature have remained without change. It has appeared to me that the cheerless aspect of an uncultivated country, has been the most fertile source of that opinion of melioration from coltivation. A country covered with houses, cleared fields, open roads, and other marks of civilized life, has a tendency to fill the mind with sensations of pleasure. In brief I indulge the hope the evidence I have collected and remitted for the Farmer, will have the good effect of at least turning the minds of the reader, to more careful attention to the general phenomena of climate, not merely in any one, but over all countries.

WILLIAM DARBY.

AGRICULTURAL HISTORY OF MARYLAND.

[It may be noted, as a matter of the agricultural history of Maryland, that as far back as the 10th of January, 1811, a society was formed, and the "Constitution of the Agricultural Society of Maryland" was agreed upon. From that constitution the following extracts are taken.]

We, the subscribers, agree to associate ourselves under the style and title of "*The Agricultural Society of Maryland.*"

The objects of our association are—the promotion of agricultore, the improvement of stock, and generally to amend the system of farming; by the adaption of such colture, and raising and maintaining such animals, as the nature of the soil and the situation of the place are best fitted to receive, and most likely to yield benefit to the individual, and utility to the public.

To attain this end, we adopt the following articles as a constitution for our rule and government: viz.

Article 1. A meeting shall be held by the subscribers, on the first Monday in September next, at the house of Mrs. Miller, in the Village of Gotham, to organize and put in motion this Association:—and there shall be a regolar meeting of the society at the same place on the first Monday in October next, and annually thereafter, on the first Monday in May, and the first Monday in October, at such place or places, as may from time to time be agreed upon.

Art. 2. The society shall consist of practical farmers, residing in Baltimore, Harford, Frederick and Anne Arundel counties, and of honorary members, living out of these counties. All honorary members shall be on the same footing as to rights and privileges with the members of the county; excepting that they shall not vote on any qoestion touching this constitution.

Art 4. Every member of this society shall pay ten dollars on being admitted, and *ten dollars annually*, on the first Monday in every October thereafter.

Art. 5. No member not having paid the price of his admission, or his annual contribution, shall be entitled to vote on any question.

Art 6. Any member may withdraw from the society on paying the contributions become due, and on his giving in his resigoation by letter, addressed to the president, at any general meeting in May or October And any member may be expelled for gross behaviour, or improper conduct, by a vote in favour of the measure, of four-fifths of all members belonging to the society; who, on this question may vote by letter, or by proxy; provided expulsion be proposed at any general meeting, immediately preceding the one, at which the question be taken.

Art. 7. The concerns of the society shall be managed by a President, Vice President, Treasorer and Secretary all of whom, excepting the secretary, shall be members of the society. They shall be chosen annoally by ballot, on the first Monday in each October. The secretary alone, shall receive a salary, and his salary shall always be fixed, previously to his appointment.

Art. 10. The treasurer shall receive all money arising to the society, and pay such sums under the order of the president, as may at any general meeting be appropriated by a vote of the society. He shall enter into a bond with security for one thousand dollars, for the surety of the money deposited with him.

Art. 11. The secretary shall collect all money arising to the society, and pay it to the treasurer; he shall have in his keeping all papers; he shall keep a book of records, and books of accounts; he shall attend to the execution of the resolves and by-laws of the society, and under the authority of the president, carry ou such correspondence, or do such other things appertaining to the concerns of the society as may be deemed requisite.

Art. 12. There shall annually, on the first Monday in October, and the first Monday in May, be a shew of cattle, horses, sheep and hogs, for sale or for inspection, to be continued as many days in succession as may be thought necessary, not exceeding three days. Any person not a member, may bring cattle, horses, hogs or sheep for sale, or inspection, to any general meeting, under such regulations as may be provided for by by-laws.

[The following names are appended to the constitution.]

Richard Caton,
R. C. Tilghman,
C. Ridgely of Hampton,
Thomas Johnson,
Samuel Sterett,
Henry Thompson,
Mark Pringle,
Charles Carroll of Carrollton,
Robt. Sinclair,
N. C. Carroll,
William Cole,
D. Williamson,
S. Owings,
William Patterson,
Robert Patterson,
A. McKim,
Edward Johnson,
Joseph Sterett,
Henry E. Bayly,
Robt. G. Harper.

HOW TO PROCURE ANIMALS OF EITHER SEX.

"M. Garou de Buzareingues published, in 1825, some experiments relative to the reproduction of various domestic animals, more particularly of sheep. In a late nomber of Magendie's Journal, he has resumed this subject, and has related the result of some experiments made with two separate flocks of sheep. In addition to these, there are many observations on the same subject applied to mares and cows; but the most important relate to sheep.

"A flock of sheep was divided into two equal portions, and a smaller or greater number of male or female lambs were to be produced, at the will of the proprietor, in each of these. The plan adopted in order to insure this result, was to employ very yoong rams in that division of the flock from which it was desired to obtain females; and strong and vigorous rams, of four or five years of age, in that from which males were to be procured. The first division was also recommended to have a more abundant supply of food, and more repose than usual, doring the period of impregnation. The following table will show the effect of the first experiment.

	Sex of the Lambs.	
Age of the Mother:,	Males.	Females.
2 years, ...	14	26
3 years, ...	16	29
4 years, ...	5	21
5 years and upwards,	18	8
Total . .	53	84
At another farm:—		
2 years, ...	7	3
3 years, ...	15	14
4 years, ...	33	14
5 years and upwards,	25	24
Total . .	80	55

"Another experiment is thus related:—A flock of 106 sheep was divided into two sections of forty-two each, one containing the strongest ewes, of four or five years of age; the second, consisting of the weakest, either less than four or more than five years old: the first section was intended to produce a greater nomber of females than the second; and after having been marked, and placed in a good pasturage, four rams, of about ten months old, were turned into them. The other section received two strong rams, each aged more than three years. The remainder of the flock, making up the number of 106, belonged to the shepherds;

they are generally stronger and better nourished than the rest, and these, forming a third section, were placed under circumstances similar to the second.

"The result of the lambing was thus:—

	Males.	Females.
First section, ...	15	25
Second section, . . .	26	14
Third section, ...	10	12
There were four double births; two of which, in the first section, produced, . . .		4
The two others, belonging to the second and third sections produced, ...	3	1

"It is to be remarked, that the lambs proceeding from the section in which the young rams were employed, were in all respects as fine as those begotten by the older and stronger rams.

"In connexion with this part of the subject, we find, in another part of the communication a remark of some importance. In 1825, twenty ewes, which had not borne for two years, received the rams clandestinely in the beginning of winter; they were almost all of them remarkably fat; they produced sixteen females and four males. Among the number of these ewes were two old ones, which had been put up to fatten in 1824, but could not be sold because they were not in sufficiently good condition: these gave one male and one female.

"M. Garou next carries his inquiries to the reproductive power in the mare and cow. Respecting the first of these, he observes, that, wishing to obtain more female than male colts, he fed his brood mares on fresh food; that he chose for propagation only such as had not been foaled or even nourished by the mother the preceding year; and he did not give them the stallion until they gave evident signs of being in heat. Five mares, so chosen, produced five female colts; and, by following the same method, out of thirteen colts foaled that year, eleven were females; and one of the two males was the product of an old mare. He remarks, that some mares of a remarkably vigorous appetite always bring forth females; whilst those of delicate health have constantly produced males. The same remarks apply to the cow."—*Lond. Med. and Phys. Jour. February*, 1828.

THE GENERATION OF PLANTS AND ANIMALS.

Plants, like animals, are produced by ordinary generation; and though we meet with various instances of production by the generation of buds and bulbs, or of slips and off-sets, the parallelism, instead of being hereby diminished, is only drawn the closer: for we meet with just as many instances of the same varieties of propagation among animals Thus the hydra, or polype, as it is more generally called, the asterias, and several species of the leech, as the hirudo *viridis*, for example, are uniformly propagated by lateral sections, or pullulating slips or offsetts; while almost every genus of zoophytic worms is only capable of increase by buds, bulbs, or layers; and some of these animals, like the house-leek and various grasses, by spontaneous separation. In effect, most of the kinds now referred to, whether animals or vegetables, may be regarded less as single individuals than as assemblages or congeries of individuals; for in most of them every part exists distinctly of every other part, and is often a miniature of the general form. The various branches of a tree offer a perfect animal. In the latter every distinct part contributes to a perfect whole. The arm of a man has no heart, no lungs, no stomach; but the branch of a tree has a complete system of organs to itself, and is hence capable in many cases of existing by itself, and producing buds, layers, and other kinds of offspring, when separated from the trunk. It is owing to this principle we are able to graft and bud: and M. Trembly having applied the same kind of operation to the animals we are now speaking of, found that, by numerous grafts of different kinds upon each other, he was enabled to produce monsters as wild and extravagant as the most visionary poet or fabulist ever dreamed of. [*Good.*

SANDY SOILS.

The proper method to correct the too great openness of sandy soils, is to mix them with clay, which is the most tenacious of all soils, and as an earth is compounded of alomina and silex, besides being generally found mixed with various constituent parts, both fossil and mineral, which causes it to abound in the food necessary almost to all plants. Where clay hills or bottoms therefore are contiguous to sandy soils, the remedy is at hand, and it ought to be liberally carted on the surface, well and judiciously mixed, and ploughed deep in; for by that means an artificial tenacious soil is formed, and deposited at a proper depth, to arrest the moisture, and the essential parts of vegetable and animal matter within reach of the roots of plants. Where clay cannot be conveniently obtained, sometimes lime may, which answers a very good purpose in some soils. [*Memoirs.*

HORTICULTURE.

KITCHEN GARDEN—JULY.

Several successional crops are required to be sown this month for the supply of autumn, and some main crops for winter consumption. Many principal crops will be now arrived to full perfection, and some mature crops all gathered. When the latter is the case, the ground should be cleared and dry for succeeding ones, or for some general autumn and winter crops, as turnips, cabbages, savoys, brocoli, cauliflowers, celery, endive, &c. &c.

The business of sowing and planting this month will be more successful if done in moist or showery weather, or on the approach of rain, or immediately after; especially for small seeds, and young seeding plants.

Old crops of artichokes now advancing in full fruit should be divested of some of the small side heads, to encourage the principal top heads in attaining a larger magnitude.

Now is the time to gather aromatic herbs for drying and distilling, &c. as spear-mint, peppermint, balm, penny-royal, camomile flowers, lavender-flowers, sage, hyssop, marjoram, fennel, dill, basil, tarragon, angelica, marigold flowers, sweet-marjoram, &c, most of which, when just coming into flower, are in the best perfection for gathering. The fennel, dill, and angelica, should remain till they are in seed.

Plant the last crops of beans, for late production in autumn. Let them be principally of the smaller kind, as they are most successful in late planting, putting in a few at two or three different times in the month; and also some larger kinds, to have the greater chance of success and variety; and in all of which, if dry weather, soak the beans in soft water, six or eight hours, then plant them, and water the ground along the rows.

Earth up celery plants, to blanch; also the stems of young cabbages, savoys, brocoli, borecole, beans, pease, kidney-beans, &c. to strengthen their growth.

Sow the principal late crops of kidney-beans, of the dwarf kinds, for autumn supply; and some more for latter successional production in September, &c. sow them all in drills, two feet or two feet and a half distance; and if the weather is very hot and dry, either soak the beans, or water the drills well before you sow them.

Continue to plant out different sorts of lettuces at a foot or fifteen inches from each other. Plant them in small shallow drills, to preserve the moisture longer; and water them well at planting.

If your melons are advanced to full growth, give them but little water, as much moisture will retard the ripening, and prevent their acquiring that rich flavour peculiar to this fruit. If they are ripe gather them in the morning. Mature ripeness is sometimes shewn by the fruit cracking at the base round the stalk, or by changing yellowish, and imparting a fragrant odour.

Radishes may be sowed for an autumn crop to draw next month.

Gather ripe seed in dry weather, when at full maturity, and beginning to harden. Cut up or detach the stalks with the seed thereon, and place them on a spot where the sun has the greatest power for a week or two. Then beat, or rub out the small seeds on cloths, spread them in the sun to harden; then cleanse them and put them by for use.

(For the American Farmer.)

ARRACACHA.

Linnæan Botanic Garden, May 22, 1828.

J. S. Skinner, Esq.

Dear Sir: I sent you a short time since, a most interesting dissertation on the culture and qualities of the Arracacha of South America, published by a society in the Island of Jamaica: you will therein perceive it stated, that there are several varieties of the Arracacha, cultivated in the vicinity of Bogota: and it may be interesting to the public to know, that two of the finest varieties are now under culture at my establishment, where they flourish with little care, and which for the present I designate as the *Red* and the *Green* from the general aspect of their foliage, &c. As I have at present above 30 fine flourishing plants, the period cannot be far distant, when they will be so extensively increased in our country, as to form an article useful in domestic economy, more particularly from the circumstance of the climate of our southern states being so suitable for their development.

Yours, most respectfully,

WM. PRINCE.

Transactions of the Agricultural and Horticultural Society of Jamaica.

Some account of the Arracacha, with a description of its botanical characters.

By Edward Nathaniel Bancroft, M. D. Read on the 20th of July, 1825.

Kingston, 13th June, 1825.

It is about forty years since the Arracacha was made known in Europe as a valuable esculent vegetable in general use in Santa Fe de Bogota, and in the adjoining Provinces: and it is now twenty years since the public attention was called to it in England by the account which Senor Vargas gave of it in Kœnig's and Sim's Annals of Botany, in which he described it as being very superior to the Potatoe in flavour, in usefulness, and in the quantity of produce, and expressed his belief that it might be advantageously cultivated in Europe. Since the latter statement, various individuals in that quarter of the globe have been endeavouring to procure the Arracacha from New Grenada, among whom, as I learn, was the late distinguished President of the Royal Society, Sir Joseph Banks. But such were the obstacles which war and other causes opposed to this object, that even Sir Joseph failed, whose name alone might have seemed sufficient to ensure success to any such undertaking. Having learnt the importance attached to this plant, I was at length, in 1821, enabled to avail myself of the kind disposition of a gentleman of the highest respectability, Don Francisco Urquinaona, then about to return to Bogota who readily promised to send me plants of it thence, and in the following year punctually kept his word, by sending me a box containing twelve shoots, of which three perished on the voyage, and three here on being transplanted. Despairing of their succeeding in the heat of this city, I placed them in charge of a very intelligent planter in St. David's Mountain, Mr. Henry Burger, and under his fostering care the remaining six throve perfectly, so that I was enabled in the following year to send young plants of the Arracacha to the Horticultural Society of London, and to his Majesty's Garden at Kew, &c. as well as to distribute others to various friends in different parishes through whose attention this vegetable may now, I trust, be considered as being extensively and well established in this island. It is not for me to speak of the value of the Arracacha, as an esculent; this will be best shown in the course of time. In taste it appears to me nearly to resemble a mixture of the Parsnip and Potatoe. I am aware that not a few of those who have tasted it but once have not liked it; yet I believe that those who have liked it even on the first trial, are quite as numerous. For my own part, I am inclined to think that the taste for it may rather be deemed an acquired one, having found with several persons, that its relish improved upon subsequent trials. As the root requires a longer application of heat than the vegetables in common use, a part of the distaste which it has experienced may have been caused by insufficient dressing. At all events a vegetable, which has, for so many ages, been the constant and favorite food of a considerable portion of South America, in preference even to the Potatoe which is there indigenous, ought not to be thought undeserving of a fair trial in the way of cultivation in Jamaica.

When the Arracacha here had arrived at maturity, I was anxious to ascertain its botanical characters, as I could not learn that they had ever been made known, even in its native country, and as much curiosity about them had been felt in Europe. It manifestly belonged to the natural order of the Umbelliferæ; but after very frequent and minute examinations of the flowers in all their stages, and careful comparisons of their appearances with the characters assigned to the different genera which that order contains, it seemed to be equally clear that, although it agreed in a few points with several of those genera, and more particularly with Apium and with Ligusticum, yet it disagreed with each in many others, so that there was no one genus in that extensive natural order, as described in any of the Botanical works to which I have had access, with whose characters the Arracacha could with propriety be deemed to agree sufficiently to allow of its being classed under it. In Apium, for instance, the general involucre is either none, or of one or two leaves; the calyx is indistinct; the general blossoms is uniform; the petals are equal, bent inwards, and keeled or bridled on the inside; the fruit is divisible into two, and, by my own careful and repeated observation with magnifiers, &c. it is also five ribbed on each side; and in all these respects Arracacha corresponds with Apium; but, in the latter, the partial involucre is similar to the general one—the florets are almost all fertile, the petals circular, the styles reflected, and the fruit eggshaped; whereas, in Arracacha, the partial involucre consists of from three to eight leaves, the florets are in a large proportion barren, the petals are ovate-acuminate, the styles continue nearly erect, declining slightly outwards, and the fruit is oblong and compressed. Ligusticum again has the fruit oblong, and the petals turned inwards and kneeled on the inside, and in these respects resembles Arracacha; but it has the fruit angular besides, and with five furrows on each side, a general involucre of seven leaves, the florets all fertile, and the styles approaching, in each of which respects, as we have just seen, it differs from Arracacha. Some other resemblances with other genera of Umbelliferous plants, accompanied, however, with more numerous differences, may readily be found; but as these cannot be satisfactorily detected without studiously comparing the characters proper to Arracacha with those of the genera in question, for which the present is not a fit occasion, it is hoped that the examples already noticed may for the moment suffice. In the persuasion however, that whenever such comparison shall be made, it will lead to the conclusion to which I have been forced, which is, that the Arracacha ought to constitute a new genus. I shall now endeavour to describe its characters, as collected from close examinations of its fructification, first suggesting that the genus, if it should be admitted by competent judges, might be named Arracacia, as being the nearest approach to the name by which it has been known in its native country as well as in Europe, and free at the same time from barbarous dissonance.

The generic characters are as follows, viz:—

The Umbel is compound; the universal Umbel has many spokes, and either no involucre, or one of a single leaf, and sometimes of two, never of more; the partial Umbels have also many spokes but their involucres are formed of from three to eight leaves, going half way round towards the outside.

The general blossom is uniform; most of the florets, particularly in the centre are barren. The individuals have a calyx of five teeth, but indistinct; five petals, equal, ovate-acuminate, entire, curved inwards and bridled on the inside. The stamens are longer than the petals and styles, and have five awl-shaped filaments bearing anthers nearly spherical, divided by a deep groove, and furnished with a pointed appendix behind the insertion of the filament. The germ is inferior, bearing two styles declining slightly, tipped with simple stigmas.

The fruit is oblong, compressed, with five naked ribs on each side, crowned with the calyx and the styles, and divisible into two parts, connected by two filiform vertical axles (spermapodia) and consists of two similar seeds applied against each other, oblong, flat on the inner surface, marked on the convex side with five prominent ribs, and furnished with several lines of sap vessels (vittæ) on the intermediate spaces (valleculæ) and with a fascia in the inner groove or commissure.

From the above characters, I conceive that the following may properly be selected to form the essential characters of the genus Arracacia, and I beg permission to propose them accordingly, viz:

General involucre, rarely of more than one leaf, or none. Partial involucre going half way round, of three to eight leaves. Most of the florets barren. Petals equal, bent inwards, bridled. Fruit oblong, compressed, five-ribbed on each side. Seeds alike, notched at base, with four multivittated vallecules, and the commissure fasciated. These characters may be thus expressed in Latin:

Arracacia—Char. Essent. Involucrum universale submonophyllum aut nullum, partiale tri-octophyllum, sublaterale. Flosculi plurimi steriles, corolla petalis æqualibus, incurvis, frænatis. Fructus oblongus, compressus, quinquecostatus utrinque.—Semina conformis, basi emarginata, valleculis quatuor multivittatis, commissura fasciatia.

(*To be concluded in our next.*)

(From the New England Farmer.)

HISTORY OF THE APPLE TREE.

To show that they are natives of Pennsylvania, if not other parts of the United States.

I shall begin with the original Indian apple tree that grew within three miles of the spot of my nativity, say thirty-four miles a little east of north from Philadelphia, called the *Townsend apple,* from the following circumstance.

See Robert Round's History, vol. 1, p. 228, that in the same ship with William Penn, in the year 1682, came from London, Richard Townsend; he was a famous quaker preacher, religiously concerned to cultivate the friendship and better the condition of the native Indians; in which concern reports have said that he devoted much time in travelling. For the history of the original apple tree, I have had it traditionally, from the family of Richard Townsend's descendants, who were deemed a family of first rate respectability.

Stephen Townsend, (grandson of Richard) was an elderly and amiable man in my time, and owner of the apple tree. I have heard him relate that his grandfather had been informed by the Indians, that back in the country was a great apple tree, where abundance of Indians, collected in the season to live on apples—that with Indian guides he undertook the journey through the wilderness, to pay them a religious visit. When he came there, he was surprised to see so many Indians. There was a spring of good water near by, and an apple tree in an Indian clearing, vastly larger than any he had ever seen in England, heavily loaded with larger and better apples than he had ever seen before—that his ideas were to take up a tract of land there for his descendants, provided the Indians would sell him what was called their good will, or claim to their clearings, which was then customary to give, to support their friendship; to that they agreed, (as to the soil) but no consideration would purchase their apple tree.—*That* they strictly reserved *to be as free as sunshine to all or any who wanted apples.* That part of the contract, the Townsend family ever faithfully observed; and Stephen Townsend did more, he supported a strong fence round it to keep cattle from the falling apples, and used to haul and throw his buck-wheat straw under the tree, to keep such as fell high from splitting.

The apples were very large and flat, or a yellow colour, striped, and speckled with red, of a rich delicious flavour neither very sweet nor sour; generally esteemed to this day, in preference to any other. I have a great plenty of them in my orchard; but I think they are depreciated in size, say one third; but not lost their former delicious flavour, or luxuriant growth of limbs and abundant bearing.

It is now some months upwards of sixty years, since I cut grafts off the original tree, and set them in young trees, from which grafts were brought here. I never measured the tree, and shall forbear mentioning my ideas of the size or quantity of apples that I have seen under it, lest I may be thought extravagant. I well remember being there when very young, and a company of the better informed old men were viewing it, and hearing them say, that according to the growth of trees, that apple tree must be much older than Columbus.

From whence the seed of that apple tree, or when the Indians cleared a field round it, is in the dark unknown; it stood on a poor thin gravelly soil, and verifies the maxim, that temperance promotes long life. Thirty-six, or eight years ago, I heard that venerable tree was fast declining. I wrote to a confidential friend of mine, (near by) that if it died or fell down, to saw it off and count its growth, for the age. His answer was, it turned up by the roots; that they sawed it off and found it so hollow, rotten, and inwardly defective, that nothing could be done to establish the age.

Another native apple tree, I may mention, I have heard the oldest people of my remembrance, say, that it was the practice whenever there was what they called a *new comer,* for the neighbours to unite, go, and make him what they called a *beginning;* that was, grub and clear a small piece of ground—put up a little log-house, and cover it with bark, &c.

There came a man from England, whose name was George Hayworth; his tract was within two miles of where I was born. I have heard some very old men say they were at that first *grubbing*: that the whole tract was thick timber, no sign of Indian clearing to be seen.

While at work, they found a large old apple tree in the woods, overshadowed with forest trees. They united, cleared around it, and made a fence, then pronounced it public property; and as such, it was considered in my time.

From some ancient documents that I have seen, that *improvement* was made in the year 1714. The tree happened to bear delicious white sweet apples, more early than any other known; as the seeds are generally turned brown in wheat harvest. That tree, although it grew on a fertile soil, never assumed a free, lively, growing appearance; as I have cut grafts from it. It died about the same time of the Townsend tree; also hollow and rotten.

If the Townsend apple have decreased in size, the Harvest sweets have increased; and the trees grow luxuriantly.

Dr. Darwin says, "grafting is the *elongation* of the same trees." I have the consolation of having re*elongated* two species of original American apple, independent of any seed or affinity with any European apple whatever: and perhaps I may be the only person that has preserved them, as I brought those grafts from the place of my nativity. They have had a general mortality amongst their apple trees.

My orchards would now afford, without doubt, by far more grafts of both kinds, than will ever be wanted; and I have been sorry, many years, that I had no conveyance, to send a box of grafts to my venerable friend, Col. Timothy Pickering.

I wish to hear through the medium of your Farmer, the opinion of your antiquarians—were apples natives of New England?

Should life and health permit me to write again, perhaps I may show a strong hypothesis that the apple trees abounded amongst the native Indians in one part of Pennsylvania, for perhaps centuries before the continent was discovered by Europeans.

SAM'L. PRESTON.

Stockport, Pa. May 30, 1828.

CURIOUS PLANT.

J. S. Skinner, Esq. *June* 1, 1828.

The strelitzia regina is one of the most curious productions of vegetable nature, and of all plants most requires an examination to comprehend the singularity of its formation. The contour of the plant at once indicates its fondness of moisture—the foot-stalk of the leaf rises from the surface of the ground to the height of three feet or more, and terminates by extending itself into a size and form not unlike the common water lily (*nuphar advena*) of our ponds and water courses, with this exception, that the leaves are not so fully expanded as if intended to form a channel for conveying to the root, the rain and dew which lodge on them. The flowers are borne at the extremity of strong shoots that also rise from the ground, and are contained in a spathe or covering, which embraces several distinct flowers, from which they escape singly. They are formed of but two petals (which when fully expanded are in an erect position, and a protruding nectary) the former are of a splendid orange colour; the latter of a blue not less brilliant. Frequently two or three of the flowers are expanded and in perfection at the same time; and the contrast of the two gayest colours, thus formed by nature, is truly unique.

The spathe that contains the flowers rests upon the supporting stalk in an horizontal manner, and opens longitudinally at the top for their escape, presenting an appearance, which at once strikes the beholder as similar to the gay tuft that crowns the heads of some eastern birds. In fact, it requires but little stretch of the imagination to carry the analogy still further; for on examining the spathe, it is found to contain a considerable quantity of fluid, doubtless a provision of nature to supply that moisture which, during dry weather, it might otherwise demand in vain—no mean resemblance to the pouch or water vessel attached to the throat of the pelican of Africa.

It is a native of the Cape of Good Hope, whence it was carried to England by the late Sir Joseph Banks about the year 1773, and by him named in honour of Queen Charlotte, who, it will be remembered, was sister to the Duke of Mecklinburg Strelitz.

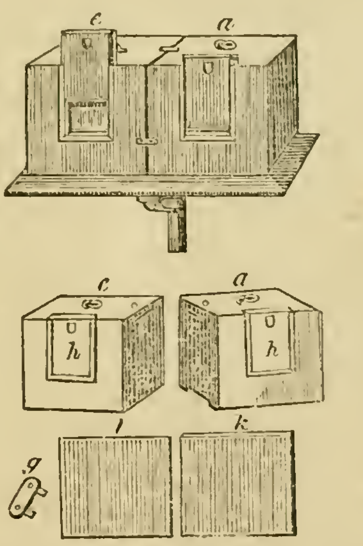
A finely executed figure of the flower is contained in the folio work of Dr. Thornton—that work, however, being rare, few will have an opportunity of examining it. Three fine specimens of the plant are blooming this year in the nurseries of D. & C. Landreth, near Philadelphia. D.

RURAL ECONOMY.

BEES.

Description and Use of Dyer's Retrocoupling Bee-boxes. By Mr. C. Hale Jessop, *Nurseryman, Cheltenham.*

These boxes were invented by a shoemaker of a village in this neighbourhood, of the name of Dyer, about half a century ago, but not, as far as I know, used by any one but myself. I adopted them twelve years ago, and consider them superior to every other, except the Polish hive. I have paid a good deal of attention to bees, and have always had a tolerable apiary in my nursery.



Dyer's hive consists of two deal boxes of exactly the same size (*a*), outside height 10 in., breadth 11 in. in every way, inside exactly square. The top front and two sides should be an inch thick, the back half an inch. The back (*b*) has an opening at top (*c*), and another at bottom (*d*), for the bees to communicate with the other box (*e*), which is exactly of the same dimensions, only without the upper opening of communication in the back, but with an entrance for the bees there. The boxes are held together by three iron staples (*g*), one on the top, and one on each side, and each box has a pane of glass, covered with a sliding shutter (*h.*) for the purpose of observing the bees when at work; four cross sticks may be put in each box in the usual manner for the attachment of the combs. The contents of each box are about 2½ gals., so that the two together (*a, e*) are about the size of a common straw bee-hive. A ring is fixed on the top of each box for the convenience of carrying or hanging up, when out of use. If you have ever so many boxes, make them all of one dimension, and then any two will fit together. The boxes should stand upon a deal board not more than half an inch thick, as wide as the boxes, and 2½ ft. in length. When only one box is used, there is a loose board of half an inch thick (*k*) applied to the side of communication, and made fast to it by the staples already mentioned (*g*), one end of which fits into the holes in the box, and the other clips the edge of the board.

When only one box has been used, and it is desired to add a second, remove this board, and thrust in a sheet of tin (*l*) between this and the box to prevent the bees from coming out. Then place the back of the empty box close against the sheet of tin, withdraw the tin, and make fast the two boxes with the three staples; then stopping the doorway of the full box, turn both round, so that the full one may stand where the empty one stood before.

The reason why the boxes ought to stand upon a thin board that is moveable, is because the bees will fasten the board to the boxes with a strong cement, so that whenever you lift the boxes you will lift up the board likewise. If it be a very large swarm when put in, both the boxes may be used at first; if not, one will be sufficient. In a good season for honey the backward box will be cemented to the board in about two months from its first establishment, and when so it is a proper time to take the backward box away. In proceeding to do this, in the first place draw out the staples, and with a thin knife cut through the cement that fastens the boxes together, and to the box on which they stand. Then thurst in your piece of tin between the boxes, so that not one bee may pass from one box to the other. Let them stand quite separated full half an hour, and then inspect them at the glass windows; if the bees are in a great hurry and confusion in the back box and quiet in the other, you are so far right, and the queen is in safety; but if otherwise, the operation has not been successfully performed; the tin must be drawn back again, and the boxes made fast as before, letting them stand nine or ten days longer, before you make any attempt to take it away again. But, if the operation has been successfully performed, open the door of the back box to let the queen's prisoners come forth; for the hurry and confusion of the bees is owing to their having lost their sovereign. The bees let loose at the back door will come forth in great haste, forty or fifty taking wing at a time, in a kind of wild flutter, quite different from the appearance they have when going to labour. No sooner do they see their fellows at the front door quiet at work, but they enter boldly, as usual. Now, if this operation be performed about midsummer, the bees will fill another box, which you must immediately join to the other as before; but, if later in the season, and you take only the half filled box, then join the loose board, and leave the bees with only one box. Observe always when a fresh box is given to stop the door of the full one, and turn the boxes so that the empty one may stand in front, for they will fill the backward one with honey first; besides, the young are always deposited quite near the front. It is needless to state that, by the use of these boxes, there can never be any occasion to kill the bees, and that in a fine season much more honey may be obtained than from the common straw hive.

I shall conclude by noticing an opinion which I consider erroneous, though believed by many, viz. that any place may be overstocked with bees as well as with cattle. From long experience I well know that, if there were but one stock of bees in a large parish, and the season proved unfavourable, they would be poor; on the other hand, if there were one hundred colonies in a small village, and the season good, all the swarms that came in proper time would be rich.

Honey and wax, taken where the bees are suffocated with fire and brimstone, are of a quality much inferior to those obtained by the other mode. This practice, which may be truly called diabolical, and must have been taken from the idea of the infernal regions, need never be resorted to by those who will adopt Dyer's bee-boxes, or the Pasieka, and, I trust, the progressive refinement of the age will soon lead to so desirable a result. C. H. Jessop.

INTERNAL IMPROVEMENT.

NAVIGATION INLAND—THE MISSISSIPPI RIVER.

It is something singular, that amid the various projects of internal improvement, the greatest has been neglected—scarcely noticed—that is to deepen the bar of the Mississippi. At the first glance of such a proposal it would appear a very impracticable project, but W. Darby measured the passes and sounded all the bars of the outlet of that mighty stream in 1813, and the following observations are founded on said measurement. Besides, three or four of little consequence, the Mississippi has four main passes or outlets; these are, the west pass with about eight feet water; the south-west pass with twelve feet water; south pass with eight feet, and the south-east, or main pass with twelve feet water. These depths are given at ordinary tides. It may, however, be observed, that the tides in the gulf of Mexico are small, not exceeding, if uninfluenced by winds, two and a half feet.

Within the bars, and in all its course, the Mississippi is a very narrow stream in proportion to its depth. As high as Donaldsonville, at the outlet of La Fourche, near 80 miles above New Orleans, the mid-channel, at the lowest stage, is upwards of 100 feet in depth. This great depth gradually lessens to about seventy feet before New Orleans, but maintains soundings of upwards of thirty feet until within one mile from the main bar. The influence also, of the great interiour inundation is less and less apparent approaching the outlets, where the difference of rise and fall from the latter cause is very trivial.

The surface of the land, between the passes is as level as that of the ocean, rising only above low, and covered by high tides. The soil an alluvial admixture of sand and blue mud; forming, nevertheless, an extremely tenacious clay. The common idea that the component clay of the Mississippi yields easily to the action of water, is very unfounded in fact; on the contrary, few earths sustain aqueous action so powerfully. The current also of the river has entirely ceased before reaching the bars.

I have made these preliminary remarks, in order to prepare the reader for what is to follow. I made the survey already mentioned, by order of Gen. James Wilkinson, and one object of the work was to ascertain whether a battery could be erected, from which point blank shot could be thrown into the main pass. The performance of the task convinced me fully, of the practicability, utility and necessity of a double work; a work which would enable the government of the United States to deepen the channel and defend its entrance. Though apparently so very difficult, the buildings at Kroninstadt at the mouth of the Neva, the Eddystone Lighthouse, and many more, were still more difficult, dangerous and expensive in their execution.

No soil could be possibly found better adapted to the sinking and retention of piles. Quick-sand, there is none; nor rock to arrest the point of the piles. It would, consequently, be very easy comparatively to commence where the water was at any given depth, and drive a double column of piles, leaving an intermediate space for a channel of any supposable width, and afterwards dredge the mud into the gulph. To shew the ease with which the dredging part could be performed, it is only necessary to state one fact. On either of the two great passes, when you have the depth of twelve, it is upwards of thirty feet in one, and upwards of fifty feet in two cables length.

Like all original projects, ridicule will no doubt be the first reward of a design to deepen the channel of our greatest river, but convinced, I am, that ships of any draught will, long before fifty years, be navigated to and from New Orleans.

With such an improvement in our inland navigation, even the canal over the Isthmus of Delaware and Chesapeake cannot be compared. Geographically, the Mississppi basin extends from No. lat. 29 to 51°, and from 26 min. to 36° west from Washington City, forming an immense navigable triangle. The base of this vast figure from the sources of the Allegany to those of Maria's river, 1700 miles; from the sources of Maria's river to the mouth of the Misssissippi itself, 1600 miles; and 1600 miles from the mouth of the Mississippi to the sources of the Allegany. Such, however, is the irregularity of its outline, from entering and salient angles, that it is only from the thumbs on a good map, that its area can be estimated with any approximation to exactness. Measured in this manner, the basin of the Mississippi amounts to 1,341,649 square miles. Of such an extent, the two valleys of Ohio, and of Mississippi properly 400,000 square miles, of a most productive soil, on which population is advancing with unprecedented rapidity.

It is to be hoped that the people, and the government of the United States will turn their attention to a subject of improvement involving so few local, but embracing universal interest, really not confined to the United States, but influencing, less or more, the whole commercial world. The Mississippi is, in fact, the most important stream, in the northern temperate zone of the earth, both in respect to soil and superficies; and when peopled, as it will be, by a most active, enterprising and free people, must, within the current century, sustain the greatest physical and moral force ever united on a single river.

Many and most unfounded errors prevail respecting the natural history of this mighty river, but none so much calculated to produce undue influence upon the projected improvement than its having frequently deserted its bed. To remove that, and many other misconceptions on the physical features of that world of waters, we now proceed to a brief sketch of the Delta, laying it down as a postulate: *That the Mississippi can no more desert its bed, than can the Susquehannah, Delaware, Hudson, &c.*

The facts of the Mississippi overflowing its banks at extreme high water, and in having outlets so far as that of the Atchafalaya from the ultimate recipient, have led to the erroneous opinion that the main volume could desert its bed. The general depth of the Mississippi I have given, and have also observed that the depth very gradually lessens below La Fourche; but the depth given was that of the water itself at the lowest stage, and not that of the river's bed below the high bank. At Bringiers, fourteen miles below the La Fourche, and one hundred and eighty miles above the main pass, the bed of the Mississippi was carefully measured by Mr. Louis Bringier and myself, and found to be one hundred and thirty-one English feet. The particular place where exists the greatest depth of this vast volume, has, I believe, never been determined; but above the mouth of Red river it lessens, and at Natchez, is about seventy or eighty feet. The width, even as high as the junction of the Mississippi and Missouri, to the divergence of the passess about eight miles above the main or south-east pass, where not swelled by islands, is in a remarkable degree uniform, not varying sensibly from half an English mile.

(To be continued.)

LADIES' DEPARTMENT.

THE MAIDEN'S ROCK ON THE MISSISSIPPI.

A TALE—From Long's Second Expedition.

"There was a time," our guide said, as we passed near the base of the rock, "when this spot, which you now admire for its untenanted beauties, was the scene of one of the most melancholy transactions, that has ever occurred among the Indians. There was, in the village of Keoxa, in the tribe of Wapasha, during the time that his father lived, and ruled over them, a young Indian female whose name was Winona, which signifies "the first born." She had conceived an attachment for a young hunter who reciprocated it; they had frequently met, and agreed to an union in which all their hopes centered, but on applying to her family, the hunter was surprised to find himself denied, and his claims superceded by those of a warrior of distinction, who had sued for her. The warrior was a general favorite with the nation; he had acquired a name, by the services which he had rendered to his village when attacked by the Chippewas; yet notwithstanding all the ardour with which he pressed his suit, and the countenance which he received from her parents and brothers, Winona persisted in preferring the hunter. To the usual commendations of her friends in favour of the warrior, she had made choice of a man, who, being a professed hunter, would spend his life with her, and secure to her comfort and subsistence, while the warrior would be constantly absent, intent upon martial exploits. Winona's expostulations were, however, of no avail; and her parents having succeeded in driving away her lover, began to use harsh measures in order to compel her to unite with the man of their choice. To all her entreaties, that she should not be forced into an union so repugnant to her feelings, but rather be allowed to live a single *life*, they turned a deaf ear. Winona, had at all times enjoyed a greater share in the affections of her family, and she had been indulged more than is usual with females among Indians. Being a favorite with her brothers, they expressed a wish that her consent to this union should be obtained by persuasive means, rather than that she should be compelled to it against her inclination. With a view to remove some of her objections, they took means to provide for her future maintenance, and presented to the warrior all that in their simple mode of living an Indian might covet. About that time a party was formed to ascend from the village to Lake Pepin, in order to lay in a store of the blue clay which is found upon its banks, and which is used by the Indians as a pigment. Winona and her friends were of the company. It was on the very day that they visited the lake, that her brothers offered their presents to the warrior. Encouraged by these, he again addressed her, but with the same ill success. Vexed at what they deemed an unjustifiable obstinacy on her part, her parents remonstrated in strong language, and even used threats to compel her into obedience—"Well," said Winona, "you will drive me to despair; I said I loved him not. I could not live with him. I wished to remain a maiden; but you will not let me. You say you love me; that you are my father, my brothers, my relations, yet you have driven from me the only man with whom I wished to be united; you have compelled him to withdraw from the village; alone, he now ranges through the forest, with no one to assist him, none to spread his blanket, none to build his lodge, none to wait upon him; yet he was the man of my choice. Is this your love? But even it appears that this is not enough; you would have me rejoice in his absence; you wish me to unite with another man, with one whom I do not love, with one whom I never can be happy. Since this is your love, let it be so; but soon you will have neither daughter, nor sister, nor relation to torment with your false professions of affection." As she uttered these words, she withdrew, and her parents, heedless of her complaints, decreed that that very day Winona should be united to the warrior. While all were engaged in busy preparations for the festival, she wound her way slowly to the top of the hill; when she had reached the summit, she called out with a loud voice to her friends below; she upbraided them for their cruelty to herself and her lover. "You," said she, "were not satisfied with opposing my union with the man whom I had chosen, you endeavoured by deceitful words to make me faithless to him, but when you found me resolved upon remaining single, you dared to threaten me, you knew me not if you thought that I could be terrified into obedience; you shall soon see how well I can defeat your designs." She then commenced singing her dirge, the light wind which blew at the time, wafted the words towards the spot where her friends were, they immediately rushed, some towards the summit of the hill to stop her, others to the foot of the precipice to receive her in their arms; while all, with tears in their eyes, entreated her to desist from her fatal purpose; her father promised no compulsive measures should be resorted to. But she was resolved, and as she concluded the words of her song, she threw herself from the precipice, and fell a lifeless corpse, near her distressed friends. "Thus," added our guide, "has this spot acquired a melancholy celebrity; it is still called the Maiden's Rock, and no Indian passes near it, without involuntarily casting his eyes towards the giddy height, to contemplate the place, whence this unfortunate girl fell a victim to the cruelty of her relentless parents.

SPORTING OLIO.

IMPORTED HORSES.

Two of the three valuable animals sent to this Country, by Admiral Sir **Isaac Coffin**, will, for the present season, stand at Brighton. They are now young; and at three years old, **Barefoot** was sold in England, for over $12,000—**Serab**, at the same age, for over $14,000.

Barefoot—foaled in 1820. Got by Tramp, Dam, Rosamond, by Buzzard, out of Roseberry, sister to Huley and Tartar, by Phenomenon, out of Miss West, by Matchem—Regulus—Crab—Childers—Basto. In 1822, when at Pontefract Sweepstakes of 20 gs. each, for two year olds—11 subs.—Barefoot beating Harpooner. In 1823, York Spring St. Ledger of 25 gs. each, 6 subs.—Barefoot beating four others. At Pontefract Sweepstakes of 50 guines each 10 ft., 10 subscribers.—Barefoot beating Palatine. In 1823, the Doncaster Great St. Legers, of 25 gs. each, 80 subs.—Barefoot beating 11 others. In 1823, at New Market, Barefoot won a Handicup Plate, value £50—beating Tressilian and 5 others. In 1824, at Ascot Heath, Barefoot walked over for the Swinlas stakes of 25 sovereigns each, 8 subs. In 1825, at Lancaster, the gold cup, value 100 gs. added to a sweepstakes of 10 sovereigns, 17 subs. of all ages.—Barefoot beating Lottery and two others. In 1826, at Manchester, Handicup stakes of 30 sovereigns each, 10 ft. with 20 sovereigns added—6 subscribers.—Barefoot beating 2 others. At Lancaster, the gold cup, value 100 gs., added to a sweepstakes of 10 sovereigns each, 9 subs.—Barefoot beating 2 others.

Serab—foaled in 1821. Got by Phantom, out of Jesse, by Totteridge, &c. Her Dam, Cracker, by Highflyer, out of Nutcracker, by Matchem—Regulus—Crab—Childers—Basto. In 1824, won the New Market stakes, 50 gs. each, 25 subscribers.—Serab beating 4 others. In 1825, at New Market Crane Meeting, the stakes 100 sovereigns, 7 subscribers.—Serab beating two others. In the same year, Spring Meeting, Serab won Handicup sweepstakes, 100 sovereigns, 6 subscribers—beating three others. In 1826, Serab won King's Plate, 100 gs., beating 3 others. In 1827, at Stockton, Serab won the gold cup, value 100 gs.—beating Cantine.

As the season is late, it has been thought for the benefit of this section of the country, that it would be adviseable to put the price as low as possible—accordingly these horses will stand at their stable near the **Mansion House**, for $25 half bred, and $50 thorough bred mares, and $1 to be paid the groom.

SYMMES' WILDAIR.

Dear Sir, *Philadelphia, June 15th*, 1828.

I am not yet convinced that your correspondent is correct in regard to the pedigree of *Symmes' Wildair*. Therefore, and because I deem it to be of much importance, that there should be no misunderstanding relative to the pedigrees of celebrated horses, I trouble you again on the subject. I was aware that the imported horse Wildair was not gotten by Fearnought, but by Cade, as you have stated, and the latter by the Godolphin Arabian; and that Mr. Bond was in error on that head.

In confirmation of the opinion I have already given, that *Symmes' Wildair* was gotten by *Old Fearnaught*, I refer you to the 8th vol. of the American Farmer, page 125, (No. 4, of the Annals of the Turf), where you will find it to be thus stated, to wit, "Symmes' Wildair, out of a Jolly Roger, who proved to be the best son of Old Fearnought. Wildair got amongst many others Chanticleer, out of a Pantaloon mare. Chanticleer, the best son of Wildair, got Cornelia, the dam of Mr. Randolph's Gracchus, &c."

If there were two American bred horses called "Symmes' Wildair," it is important to breeders that the fact should be clearly established. It is not stated that Wildair, alluded to in the advertisement, over the signature of John Johns, which you published in the last number of the Farmer, was called *Symmes'* Wildair.

I agree with you that it is worse than folly to give the same name to several horses, for the motive, not unfrequently, is to give an undeserved character and value to a horse, and thereby practice a deception upon a purchaser and upon the community.

I am, dear sir, most respectfully,

J. S. Skinner, Esq. Yours, J.

THE JONES ARABIAN.

This beautiful imported stallion will stand for mares the ensuing season at Aughenbaugh's tavern, Main street, in the borough of Carlisle, (Cumberland county;) and at the stable back of Brady's tavern, sign of the Pennsylvania Arms, corner of Market and Pine streets, Harrisburg, (Dauphin county;) at the rate of eight dollars the single leap, payable in cash; fifteen dollars the season, payable at its expiration; and twenty dollars to insure a mare in foal. Persons parting with insured mares, out of the above counties, before it is ascertained whether they are in foal or not, will be held responsible for the insurance. He will stand one week at Carlisle, and one week at Harrisburg, alternately. The season will commence at Carlisle on the first day of April, and terminate on the last day of June.

The **Jones Arabian** is a dapple grey horse, eight years old this spring, 15 hands high, black legs, main and tail, of fine temper, spirit and action In all the points which constitute the courser, he admits of no superiour in this country. He was selected with great care by Major Stith, the American Consul at Tunis, and by him purchased for Com Jacob Jones, of the United States navy, by whom he was imported in the frigate Constitution. Previous to his importation he ran a trial race at Gibraltar, at the solicitation of the Governor, the Earl of Chatham, against one of his lordship's English blood horses. Although the Jones Arabian had but little preparatory training, was very young, and just taken from on ship board, it is admitted he made an excellent race; manifesting fine speed, wind and bottom. His importation is noticed in the American Farmer; and also another communication is to be found in the 8th volume, respecting the race. When it is known that the English blood horse derives his fine qualities from the Arabian, it is scarcely necessary to advance any other argument in favour of this stock.

The English racing stock never arquired a very high character until it was crossed with the blood of the Darley Arabian, the Godolphin Arabian, and the Leeds Arabian. The Darley Arabian was the sire of the Duke of Devonshire's Childers, (known by the name of Flying Childers,) who was the speediest horse England ever produced, having ran nearly a mile a minute, or four miles in six minutes and forty-eight seconds. The Godolphin Arabian was the sire of more good runners than any other stallion that ever covered in Great Britain: and there is not a race horse of any character, either in England or this country, that does not partake of his blood. These Arabians were only fifteen hands high; and the Godolphin was distinguished, as the Jones Arabian is, by an uncommon forehand and a deep declining shoulder.

The Godolphin was the picture of a wild horse. He was brought from the coast of Barbary, the very country where the Jones Arabian was purchased. The most famous stallions of Great Britain and this country possess also a great portion of Arabian blood, and trace in their pedigrees Croft's Barb, Curwen's Barb, Honeywood's Arabian, the Pajet Turk, the Byerly Turk, the Burton Barb, Fenwick Barb, Woodstock Arabian, &c. Lindsey's White Arabian, that was imported into this country many years ago, was undoubtedly a stallion of great worth, and his blood is a favourite cross in the Southern race horse. Bussorah, the sorrel Arabian, imported into New York a few years ago, is the sire of some colts which have performed well on the turf and sold for high prices.

The **Jones Arabian** has stood for mares but a few seasons in Cecil and Kent counties, Maryland, with distinguished reputation and success. Some thorough bred mares are in foal to him. His oldest colts are but two years old this spring, and (although their dams are not large) are distinguished for size, as well as beauty of form.

It is well known that most of the famous turf horses have rarely exceeded 15 and 15½ hands high. It has also been remarked that the horses of the present day, although higher, are not able to carry as heavy weights, nor run as good races as those animals which figured on the turf after the revolution, and were more closely related to the Arabian stock. The Medley stock, descended from the little grey horse, Gimcrack, who was not 15 hands high, (a grandson of the Godolphin) were able to run races with heavier weights, and in as good, if not better time, than perhaps any other that ever graced the American turf. In consequence of the Arabians breeding in and in for centuries, that the blood of the same family of horses may be preserved, their stock has deteriorated in point of stature; but whenever it is crossed upon a new stock, the produce has ever been distinguished for size, action, great strength, and excellence of conformation.

April 1, 1828. WM. B DONALDSON.

If you were born a gentleman, take care to live and die like one.

MISCELLANEOUS.

(From Foreign Journals.)

Enormous Spiders.

In the Brazils, the spider reaches an enormous size, with different habits from those of Europe. It stretches its web from tree to tree, and no longer appears a solitary insect; many hundreds live together, and form nets of such strength, that you may often see a bird of the size of a swallow, quite exhausted with struggling, and ready to fall a prey to its indefatigable enemy.

Colour of Soils.

An experiment which I have often repeated upon light as well as tenacious soils with like success, demonstrates how greatly the colour of a soil influences the accumulation of heat. Coal ashes were sprinkled over half the surfaces of beds sown with peas, beans, &c. and on these the plants invariably appeared above ground two or three days earlier, obviously on account of the increased warmth; it being a well known fact, that dark coloured bodies absorb caloric more readily, and in larger proportions, than those of a lighter hue.

French Soups and Sauces.

A French cook is indebted for his delicious sauces, entirely to the produce of the kitchen garden. Ginger, Cayenne pepper, and the host of hot exotics, which in England render the palate a fiery furnace, are wholly excluded from French cookery. Wine oil, butter and bouillon, (stock) form the basis of all soups and gravies: which are flavoured with herbs from the garden. French cookery may therefore be pronounced extremely healthy, instead of the reverse, as is supposed in England.

THE FARMER.

Baltimore, Friday, July 4, 1828.

CULTIVATION OF THE VINE.

Baltimore, June 21, 1828.

At a meeting of a number of persons desirous of promoting the cultivation of the Grape, held at the residence of Mr. George Fitzhugh, Jr. in this city on Friday evening, 20th inst. Mr. John Montgomery was called to the chair, and Dr. Richard G. Belt, was appointed Secretary.

The object of the meeting being stated from the chair, it was, on motion,

Resolved, That it is the unanimous opinion of the meeting, that the establishment of a society for the improvement and extension of the cultivation of the *Vine* in this state, will be highly promotive of many important objects.

Resolved, That the chairman appoint a committee to prepare a system of rules for the government of said society, which shall be submitted for its approbation at the next meeting, which meeting shall be convened by advertisement in one or more papers in this city, notifying all persons who take an interest in promoting the objects of the society to attend.

The following gentlemen were appointed a committee in pursuance of the above resolution—Doctor John C. S. Monkur, Mr. Charles C. Harper, Mr. Henry W. Rogers, Mr. Philip Poultney and Mr. George Fitzhugh, Jr.

Resolved, That Dr. John C. S. Monkur be requested to permit the publication of his very interesting address to the meeting, and that the same be published in the American Farmer.

Resolved, That the proceedings of this meeting be signed by the chairman and secretary, and published in the several papers of the city.

JOHN MONTGOMERY, *Chairman.*
Richard G. Belt, *Secretary.*

BUCKWHEAT AND TURNIP SEED.

The subscribers have received a quantity of Buckwheat, suitable for seed. Also, their crop of *White Flat*, Ruta baga and other *Turnip* seeds, raised this season under their direction, which they warrant to be true, and much superior to seed commonly offered for sale. They have also just received, by ship Aris from Liverpool, their fall supply of Garden seeds in fine order, a few of which are named, Early York, Early Battersea, Early Sugar Loaf and Red Pickling Cabbage. Scarlet short top Raddish; Early and Late Cauliflowers; Large purple Cape Brocoli; Purple Egg Plant, and White Clover seed—also a fresh supply of Pickling and other Cucumber seed, &c.

IN STORE,

Grain Cradles, Scythes. Rakes and Forks; patent and common Wheat Fans, Cultivators, Ploughs, &c. They have also made arrangements to keep the Early May, or Rare ripe White Wheat for sale. Persons desirous of procuring seed would do well to send in their orders in time.—Price $1 25 per bushel.

Baltimore, 1828. SINCLAIR & MOORE.

IMPROVED REFRIGERATOR,

Or portable Ice House, made only by Daniel Richardson, No. 55, Holliday street, near Bath street bridge.

Good Housewives only can calculate the many useful and economical purposes to which this Invention may be applied. It may be fully relied on for keeping Butter, Milk, Meat, Eggs, Fruits, Vegetables, Wines and Liquors of every kind, or any other article of Household Consumption, perfectly cool, fresh, pure, sweet, clean and free from taint as long as desirable, and it is attended with another advantage—complete security against every species of vermin. And in Winter it will keep any article from freezing that may be deposited in it.

Also, his new Invented Butter Box, constructed on the same principles of the Refrigerator. In these butter boxes, any quantity of butter may be transported to market from any distance, by land or water in the best condition, perfectly hard and without injury to the form of the prints, in the hottest season. Captains of steamboats and vessels going to sea, will find those articles the most essential thing on board their vessels that *History* ever gave an account of, as coarse alum salt can be used in them to keep them cold instead of Ice.

Certificate,—*City Hotel, Baltimore, August 4th*, 1827. I have had in use for two years, a Refrigerator made by Mr. Daniel Richardson, which is the most useful article for the preservation of meats, milk and butter during the hot season, that I have ever seen; it has fully answered my expectations, and I am so much pleased with it, that I have ordered one on a very large scale. I would recommend it to all who are desirous of such a convenience. DAVID BARNUM.

Baltimore, August 1st, 1827.—I purchased of Mr. Daniel Richardson in May last, one of his Improved Refrigerators, and find it so useful, that I could not want one for double the cost, having had a trial, I do not see how we could dispense with it.

GEO. BELTZHOOVER,
Indian Queen Hotel and Baltimore House.

IMPLEMENTS OF HUSBANDRY.

The subscriber has on hand and offers for sale, a quantity of superior Grain Cradles, manufactured by David Little, of Gettysburg, Pennsylvania. Also, Mr. Little's celebrated patent Scythe Rifles, all of which will be warranted good. Likewise on hand, a full assortment of Gideon Davis' Patent Ploughs, Barshare and Coulter Ploughs, which he will warrant to be equal to any in the country. Steel lined and cast iron Cultivators, for the culture of corn and tobacco: Shovel and Substratum Ploughs and Harrows. Also, his patent Cylindrical Straw Cutter, which has never been equalled for its kind in any country; Brown's Vertical Wool Spinners, for family use, running six spindles, simple and efficient in its operation; Corn Shellers, Wheat Fans; patent spring Washing Machines; cast steel Axes, Mattocks, Grubbing Hoes and Picks, Shovels, Spades, &c. &c. And can furnish to his customers, Garden Seeds, raised by the Shakers of Berkshire county, Mass.

All the above articles will be sold on reasonable terms for cash. Communications by mail (*post paid*,) will receive prompt attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite the United Hotel.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

Sales of tobacco the week past was very limited, and but little sought after. The inspections of the last week comprise 385 hhds. Maryland; 33 Ohio—Total, 418 hhds.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00 —red, 3.00 *a* 5.00—fine red, 6.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 6.00.

Flour—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.62½ *a* 4.75; city mills, 4.37½ *a* 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .85 *a* .90—best white wheat, .95 *a* 1.00—ordinary to good, .80*a*.85--Corn, .32 *a* .34—Rye, .50—Oats, 20 *a* .22—Beans, .90 *a* 1.10—Peas, .40 *a* .50—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11, very dull the week past—Georgia, .9 *a* .10½--Whiskey, in hhds. 1st proof, 21 *a* .21½—bbls. 22½ *a* 23--Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—3 quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 5.00—Bacon, hams, Balt. cured, .10; do. Eastern Shore, 12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 bbl.

Some small parcels of new wheat, from the Eastern Shore, have been brought to market; the quality of which was rather inferior, and sold from 65 to 90 cts.

Marketing—Butter, per lb. .12½ *a* 25; Eggs, dozen .15; Potatoes, bush. $1.00; Chickens, doz. 2.50 *a* 3.00; Beef prime pieces, lb. .8 *a* .10; Veal, .6; Mutton, .6½ *a* .7; Pork, 4.50 *a* 5.00; Green Peas, per bush. .50 *a* .75; Radishes, bunch, .2 *a* .3; Lettuce, large heads, .3 *a* 4; young Ducks, per doz. 2.50 *a* 3.00; young Lambs, dressed, 1.75 *a* 2.00; do. Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Gooseberries, do. .18 *a* .20; Currants, do. .12½; Cherries, do. .10 *a* .12½; Raspberries, 18¾; Soft Crabs, doz. 1.00 *a* 1.50; Hard do. 12½ *a* 18¾.

Hay, per ton, $7.50 *a* 8.00; Rye Straw, 5.00; Cut Grass, per bundle, .10 *a* .12½.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

ON THE CULTIVATION OF THE VINE.

An Address, *delivered before a number of Gentlemen convened in Baltimore June 20, 1828; for the purpose of forming a Society for promoting the Culture of the Grape, by Dr.* John C. S. Monkur.

Gentlemen—We are here assembled for the purpose of adopting such measures, as will be efficient for the successful "*propagation and cultivation* of the *Vine*," in this state.

In calling your attention to this subject, we not only do it under a perfect conviction of the possibility of succeeding in our contemplated design; but, at the same time offering to your consideration, an amusement instructive, entertaining and useful; by the pursuit of which, is opened in this country an extensive field for investigation to the accurate observer, and also a staple article of great national as well as individual importance.

Necessity, the mother of invention, first suggested agriculture. When the spontaneous productions of the vegetable kingdom were rendered scarce by consumption, it was an evident idea to increase them by art: "Nature was the guide," which conducts this work of regeneration, with seeds that fall from matured plants, and in their turn become living and organized bodies.

The incessant and rapid increase of mankind, and necessarily an augmentation of their wants, urged the formation of governments; for, without the enactment of salutary laws, agriculture and commerce would never have flourished. The progress of Agriculture is vastly promoted by emulation, nothing can be more destructive to it, than to remove that incentive, and who will enter the list that despairs of victory? "We dwell in an agricultural country; and agriculture is the sure and certain support of a nation. It gives to our country the only riches that it can call its own, and is the chief support of our independence."

But as rapid as has been her advancement to perfection, in the varied productions under her guidance, there is *one*, which in this country, has as yet been but slightly touched by her industrious arm. It is to this particular *one*, we wish to introduce you; and we will find in tracing the history of the *Vitis Vinifera*, or common vine, to its earliest periods, that its progress to its present advanced state of perfection in Europe, has been slow and unequal, very unlike the rapid improvement which has attended other branches of agriculture. We also observe, that its advancement has been arrested by the contentions of different nations; by the envy, ignorance and nationally interested motives of different writers; but by the industry and indefatigableness of a few cultivators, those difficulties have been overcome; and it is now successfully cultivated in Europe, and proving of immense national as well as individual advantage. We have every reason to believe, that its cultivation is of great antiquity, and coeval with our first parent.

The first mention of the *vine* we find in the ninth chapter of Genesis. "And Noah began *to be* an husbandman, and he planted a vineyard; and he drank of the wine." It must not be supposed, that this was the first time he was acquainted with the process of wine-making; but that he possessed a knowledge of this process before the deluge; and after leaving the ark, may he not have collected his scattered vines and made of them a vineyard? "It is but reasonable to suppose that he and his family were acquainted with some of the arts and inventions of the Antedeluvians; and it is extremely probable that they made known such particulars to their descendants as were most useful in common life." We also observe as early as 1490 years before the birth of our Saviour, in the thirteenth chapter of Numbers. "And be ye of good courage, and bring of the fruit of the land. Now the time *was* the time of the *first ripe grapes*. And they came unto the brook of Eshcol, and cut down from thence a branch with one cluster of grapes, and they bare it between two upon a staff, and the place was called the brook of Eshcol, because of the cluster of grapes which the children of Israel cut down from thence."

In continuing our examination of this most ancient and best of books, we observe 591 years after this period in the twenty-first chapter of the first book of Kings. "And it came to pass after these things, that Naboth the Jezreelite had a *vineyard*, which *was* in Jezreel, hard by the palace of Ahab king of Samaria." It is impossible to state the exact time when mankind first discovered fermented liquors, but from these quotations it will be perceived, that *wine* was known at a very early period; and as civilization and luxury advanced, the number was greatly increased. If we consider upon the simplicity of the processes essentially necessary for its manufacture, "it will appear exceedingly probable, that the discovery was not made by one person or country exclusively, but by different individuals and nations at very different periods." We are strengthened in this assertion by the circumstance of their living in the earliest periods of civilization in tribes or families; having each a government separate and independent, and the measures adopted for the supplying of their wants were as equally independent of each other.

"The ancients were acquainted with but a very small part of the globe. They called all northern nations *Scythians*, and all the western, *Celtæ*, indiscriminately. They had no knowledge of *Africa* beyond the nearest part of *Ethiopia;* nor of *Asia* beyond the *Ganges;* and as for our quarter of the world, *America*, they had not even a tradition about it." The ambition of their sovereigns to enlarge their dominions gave rise to emigrations; yet after their dispersion, commercial intercourse was rendered difficult by the confusion of tongues; but notwithstanding, commerce was pursued with considerable ardour, owing doubtless to an increase of their necessities occasioned by their separation and settlement in new countries; also of having left many conveniencies behind them; and their discovery of many new productions, in their recently acquired territories, may have induced them to revisit their natal soil for the purpose of exchanging their newly discovered commodities for such articles as they stood most in want of; hence the origin of foreign commerce. So very gradual and imperceptible was the exportation of wine from *Asia Minor* into Europe, that a few years before the birth of our Saviour, "the Romans were seldom able to regale themselves, owing to the exorbitant price of foreign wines, very little being made at that time in Italy, that they were rarely introduced at an entertainment, and when they were, each guest was indulged only with a single draught. But in the seventh century of Rome, as their conquests augmented the degree of their wealth, this luxury was sought after with avidity, and wines became the object of particular attention. The westerly part of the European continent was subjected to *arms*, and enriched with the *vines* of *Italy;*" its cultivation progressed very slowly for sometime, but now it is cultivated to immense advantage in Italy, France, Spain, Portugal, Austria, Styria, Carinthia, Hungary, Transylvania, and many parts of Greece, a part of Africa; and why not with like success in these United States.

The same causes which have delayed its cultivation in the different countries we have spoken of, have also existed in our own. When we were colonists and subjected to the ministerial jurisdiction of the mother country, we were forced to receive whatever commodities she pleased to offer us. We were likewise prevented from manufacturing all productions that were made by her, or her other possessions, and bound to receive them at their own prices. Our agricultural and manufacturing interests became paralyzed; and day after day her oppressive measures increased, until the burden could be no longer supported. The proceedings at Boston, at Annapolis, and those on the 4th July '76, are fresh in your recollections—then came verified the prognostications of Sir Joshua Child in the year 1660 That the colonies would soon revolt, "that America possessed a fitness for rival manufactures, building rival shipping, and draining the mother country of people." And he might have added, a soil and climate adapted to the cultivation of every necessary and luxury of life. We hazard the opinion that our national resources are such, provided they be strictly attended to, as to render us entirely independent of any nation on the globe, not only for our necessities, but even the luxuries which habit has made essential to our happiness. "The Indies produce nothing which the Mississippi could not as easily produce. The Ganges fertilize vallies less extensive. Its Deltas as well as those of the Nile, are in the same latitudes, and their rivers generate the same exuberant soil, only in smaller space and less quantities than the great western Nile; but the Mississippi comprehends in its bosom, the regions of the temperate zone as well as the tropical climates and products."

In continuing our research into the causes which have delayed its general introduction, we perceive that France was the cradle in which were raised the most effectual and delusive arguments against the cultivation of the vine in these United States. M. Brissot whose writings have been largely circulated in France, as well as in this country, and "whose ambition was to make France the greatest and most powerful rival," deserves well of his countrymen, for the progress he made in his attempt to open the eyes of the French nation, to prospects of new sources of advantage.

The result of all his observations, is, that the Americans ought to proscribe the cultivation of the vine. He remarks, that if they will hearken to the counsel of able observers, and reap advantage from the errors of other nations, they will carefully avoid its cultivation. In another part of his work is written, "that it would be absurd to deny, that the United States can produce wine, because experiments hitherto made have been fruitless. 'Extended as they are, and having countries as southern as Europe, it is impossible there should not be in many places, a soil, proper for the vine. The little success of attempts, may therefore be attributed either to the ignorance of the cultivator, his want of perseverance or a bad choice of plants." We likewise observe in "the sketch of the United States of North America, by Le Chevalier F. De Beaujoor," the same spirit of opposition. The slightest glance can perceive why they sent forth such powerful and indeed too effectual complaints against its cultivation. Having their provinces filled with vineyards, and the products thereof as wines, brandies and the essential salt cremor tarter their staple commodities, must consequently have made them look anxiously towards America as a valuable market for the sale of those productions. "France ought to desire the commerce of the United States," says Brissot,—"They offer to her an immense consumption for her wines and brandies; therefore the commerce with the United States will be the cause of the improvement in French cultivation and industry." Here then is an acknowledgment why the United States should restrict the manufacture of wine. We cannot than otherwise admit they possess every facility for its successful culture; but at the same time the interest of our country forbids it: they are the consumers of from one, to two millions of our wines and brandies annually.

It is not necessary to dwell longer in this place, on the views of these politicians, for in every page is discoverable, an ardent attachment to the interests of their country, which attachment, as firm as it was honourable, was unquestionably among the causes which urged them to oppose its cultivation in the United States of North America. The anxiety for exterior commerce has no doubt been another of the causes which has delayed the cultivation of the vine in this country. Abbe Mably, and the celebrated Doctor Price, have exhorted the independent Americans, if not to exclude exterior commerce entirely from their ports, at least to keep it within very contracted bounds. "Alas! what can the United States import from Europe," continues Dr. Price, "except it be infection? I avow it," cries the Doctor, "I tremble in thinking on the furor for exterior commerce, which is apparently going to turn the heads of the Americans. Every nation spreads nets around the United States, and caresses them, in order to gain a preference; but their interest cautions them to beware of these seductions." In the present situation of our country; in the infancy of its manufactories exterior commerce appears absolutely necessary for a time to its well being; but the period is fast arriving, when we should look to our own resources. It is very well remembered, says a writer in the National Advocate, that in 1815, 16 and 17 the merchants north of the Potomac, including the shipping interest, sunk 500 millions of dollars which were lost to our country. A destroying angel could not spread *desolation* more complete and appaling; the time is not remote when the true cause will be acknowledged, and government will be charged with the want of foresight, and with not having guarded with her shield the resources of the country; had they bere discovered the changes which the world was to undergo in passing from war to peace, and having directed the energies of this nation to that, we are now we trust resolved upon--viz: Manufacturing, we should have been the richest nation on the globe. In extending our examination into the causes which at present operate against its propagation and cultivation, we have with regret to enumerate those which have been urged by our own countrymen. We have often heard it said, that it is impossible for the vine, to be raised on an extensive scale to any advantage in this country; for we possess situations, that do appear at the first view very eligible for the vine, but upon a trial they do not exhibit the expectations entertained of them. However in answer to this objection a little time, and some industry will show that those conclusions are erroneous, and the reverse of what is expressed. Again—we are disposed to enter upon the planting of the vine, and would do it, if it were not, that our knowledge were limited; also the considerable difficulty of obtaining those who possess the necessary information regarding its culture, and the uncertainty in the choice of the particular species which would best suit our soil and climate. Now these causes, upon the first examination, may appear frivolous and inefficient; nevertheless, that they do in part delay its cultivation, is evident to those who have made much inquiry into the objections against the propagation and cultivation of the vine in the United States. To remove those fears and apprehensions entertained for its ultimate success, and as the best means to impart the necessary information concerning its propagation and cultivation, we have deemed it expedient to form a social compact, whose "end and aim" shall be to collect and disseminate all knowledge concerning the vine.

The formation of the society contemplated, would eventually overcome the difficulties now attending its general introduction; for acting as a body would enable us to collect such information as would be impracticable individually. We possess many advantages at this time, but known to very few. There are many individuals in this state that have applied themselves diligently, and indeed very successfully to the propagation and cultivation of the vine on a small scale, and no doubt they possess information that is truly valuable. At the present period this knowledge in a manner is useless; but if a society for this particular purpose existed, it would doubtless be communicated, as also a very powerful incentive to urge on to further investigations.

Its existence would very likely cause the formation of similar societies in other states, the advantages therefrom arising cannot be too justly appreciated. In the event of its formation it is respectfully suggested at the different vintage periods, the holding of *fairs* or *exhibitions* of wine made in this state, and of ripe fruit, accompanied with the name and age of vine, country indigenous to, exposure, soil, and mode of cultivation. As an incitement, to the best sample of wine, and the most superiour fruit, a premium might be adjudged.

The manifold advantages arising from a procedure of this kind are self-evident. Here would be presented at one view all that could be desired. The inquirer has before him the wine and fruit, a a specimen of the soil, and a history of its exposure and cultivation; by which specimens he could immediately direct himself to that particular species of the vine, which would best suit his own soil and situation. Then would he commence the great work of planting the vine, not with the fears and apprehensions attending the uninformed, but with the assurance and reliance that accompanies the more experienced. I will not anticipate the pleasure of a mind inquisitive into nature's beauties, and the inexpressible delight in examining and contrasting the numerous varieties of this great genus of plants, that may be then presented to view. In this assemblage, may not the diminutive *Hatif Noir*, vie with the enormous *Syrian;* and the curiously striped *Aleppo* emulate the singularly shaped *Cornichon?*

We wish it to be recollected, that this plan is *recommended*, not imposed; yet we hope it will receive that sedate and candid consideration, which the magnitude and importance of the subject demands, and which it certainly should receive. For at this time it is only left to prove, that we have similar climates and as suitable situations as are to be found in any of the countries where this plant is cultivated. At the same time we wish it not to be understood that we desire to make a vineyard of the United States; but that we possess in an eminent degree very many situations, soils and exposures, that could not be adapted to the ordinary purposes of agriculture; which if set with the vine, and proper cultivation, would reward by profit and pleasure the skill and exertions of their improvers.

Wine, in the language of a very eloquent French writer, becomes a real want of those who have once been acquainted with it. Happy or miserable, rich or poor, every body makes use of wine. Wine is the delight of the happy, or of the rich. It helps the unfortunate to support his sorrow; the poor think they find an equivalent for the food they are without. Ease has been lately too general in the United States, not to have introduced the use of wine; and futurity, by augmenting their means, will only increase their want of this liquor.

As necessary then as is this commodity, upon reflection it is surprisingly strange, that very adequately possessed with every facility for its manufacture in this country, that we should so long have been obliged to depend upon foreign importation. The period, it is hoped, is not very distant, when we shall hail this species of industry as a happy harbinger to her future greatness. The grape vine of many distinctly different species, is indigenous in the United States, and may be found in every degree of latitude from Maine to Florida. We might, with care, domesticate to our climate, many of the richer and more delicate varieties of the southern latitudes; as plants have an astonishing facility to accommodate themselves to soil and climate, and none more particularly than the vine. We offer to your consideration the following valuable table, of corresponding temperatures in relation to the finest wines, and those in considerable repute, as taken from the new Cyclopedia.

Moselle, Rhenish and *Hock*, which are produced in 49 to 50 degrees, north latitude in Europe, equal in North America to 40 to 41 degrees. *Champagne wine* in 49 equal to 40 in North America. Burgundy wine, most exquisite, in 47 to 48 north latitude in Europe, equal in North America to 38 to 39 *Claret, Sauterne* and *Grave* wines, 44½ to 45½, equal to 35½ to 36½.

Oporto or Port wine which is produced in 41 to 20 north latitude in Europe, equal in N. America to 32 to 20.

Lisbon and *Carcavella* wines in 38½ to 39½ equal to 29½ to 30½. Xeres or Sherry—St. Lucar and Malaga or mountain wines are produced in 37 to 38, equal to 29½ to 30½.

To these indications of temperature may be added the celebrated wine called *Tokay* It is manufactured near a place of the same name in Hungary, in 49 degrees north, a temperature approaching to that of Champagne, one of the best wine districts in France. "This situation may be considered as nearly corresponding with that which belongs to the level country south of the common point of contact of Virginia, Maryland and Pennsylvania." We may also add "the red and white Constantia, which are produced in 34 degrees south, a position deemed colder than the same latitude north." By this correspondence of temperature, between parts of our country and the districts above enumerated, the success of the wine manufacture appears to be rendered certain, especially when we consider the variety and number of our native grapes. We are enabled by the industry and perseverance of a few cultivators in this country, to offer convincing proofs of its entire practicableness. Mr. Eichelberger, who has paid considerable attention to this subject, offers a calculation of the cost of a vineyard of ten acres. He makes it amount on the fifth year of its culture (the period of its full bearing) to 3,127 dollars. Then follows a statement of gross produce, annual advance for cultivation, and nett product of ten acres.

Produce of ten acres.

60 hhds. 3,780 galls. at $1		$3,780 00
Deduct		
Annual advance per acre $25,	$250 00	
10 per cent interest thereon,	25 00	
10 per cent. indemnity on gross produce for loss of crops,	378 00	
		653 00
Nett product,		$3,127 00
or $312 70 per acre.		

This calculation "it must be remembered, is not a mere creature of pen, ink and paper," but is a result that may be depended upon; and one which unquestionably holds out a sufficient encouragement to every proprietor of the soil to commence the "*great work of planting the vine.*"

"It appears to us," says a writer in a Philadelphia paper, "that no species of agriculture, in the best soils, or horticulture in rich gardens, in the vicinity of large city markets, ever produced such profits as the vine would yield for a century to come if properly cultivated in the United States."

These ideas perfectly coincide with our own, from what little experience we have had in the cultivation of a few varieties of superior table grape. The city of Baltimore, is perhaps at this time, in possession of as valuable a number of exceedingly superior table fruit, as may be found in any other situation in the United States. To the efforts of a French gentleman of this city, well known to the most of you, are we indebted for the greater part of this variety; and whose laudable exertions in the introduction and cultivation of the most delicate and superior varieties of foreign table grape, deserve the highest encomiums. That their cultivation for the table *only*, will yield an immense profit, the following calculation is intended to show:—say you have planted one thousand vines, which will not occupy, but little more than the two thirds of an acre, and each vine at the period of five years, (but there will be considerable fruit after the second year) will yield at the least computation fifteen pounds.

Now the manner we should dispose of this fruit, would be, by having jars made similar to those in which are brought imported grapes, or in any other shape which would best suit the purpose, and as the different varieties ripened, they should be carefully collected and sent in those jars to auction, they would there bring, at the lowest calculation, from 12½ to 15 cts per pound. We will say,

15,000 lbs. at 10 cts. per lb.		$1,500 00
Deduct.		
An allowance for sundry expenses attending cultivation,	$150 00	
10 per cent. interest thereon,	15 00	
For the purchase of jars,	150 00	
10 per cent indemnity on gross produce for loss of crops,	150 00	
Per centage on the sales at auction and other contingent expenses,	150 00	
		615 00
Nett product of 1000 vines,		$885 00

To those unaccustomed to the vine, this computation may seem highly exaggerated; but depend upon it, he who has penetration enough to perceive its practicability; and will first commence the business upon an extensive scale, being the first in market with large quantities, will unquestionably reap the richest harvests For the further elucidation of our subject, we subjoin the computation made by Mr Loubat, "one acre of land can easily contain 1200 roots of grape vines, which if cultivated as he recommends will not cost in this country more than the cultivation of corn. Suppose that each imported root should produce *only* six pounds of grapes, and the grapes should sell for only six cents a pound, the proceeds would be $432 each year; and if converted into wine, one acre yielding 7,200 pounds of grapes will produce 620 gallons, which at 50 cents per gallon, will give $310, if converted into brandy 620 gallons of wine giving 120 gallons of brandy at one dollar, will be 120 dollars." Many observations supporting us, may be found in a letter from W. Elderton Allen, Esq. to Dr. Mitchell of New York Its length precludes our noticing it in this place. It may be found on the 6th number, vol. 10. of the American Farmer. But we are satisfied a sufficiency has been adduced to prove to the most skeptical, that what is now required to make its cultivation of immense national as well as individual importance, is to extend our research into the best manner of cultivating, "rearing and management" of this plant, which require persevering attentions that would be greatly promoted by the formation of a *society* for this particular object. Before closing our remarks upon this subject, it may not be improper to take a cursory view of the benefits which would be derived from its cultivation in this country. The first and the most important one, the object of all our industry, that of a pecuniary consideration, has been considerably dwelt upon in our preceding observations However, its cultivation upon farms or landed estates, would greatly enhance their value, there can be no question Instance the estate of Chateau Margaux, in France, "which produced 400 hogsheads a year, was sold for 80,000 francs, (16,000 dollars.) Its wines in vats on the lee, in the year 1814, sold for 3,000 francs, 1600 the tun of four hogsheads." In our own country, Mr. Eichelberger says, "that a farmer experienced in vines, and a responsible man, who knows what he is about, offered him 200 dollars an acre per year for his vineyard, which he refused" Even in the city of Baltimore, a dwelling house with a lot attached thereto, and set with vines, if offered for sale at the vintage period, would command from 200 to 500 dollars more, than if planted with any other species of horticulture.

Another and a momentous advantage arising from the manufacture of wine, would be the exchanging a comparatively innocent and exhilirating beverage, for those which are highly deleterious in their nature, and destructive in their consequences. That the self-destroying vice of *intemperance*, is extending its calamitous influence over our happy country, and demoralizing and depopulating its inhabitants, is a reality that calls loudly for the exertion of every possible means for its suppression. "Poverty, sickness and even death may be endured;" but when the degraded creature of intemperance enters the domestic circle, then comes sorrow, "that rends the heart—grief that cannot be alleviated, that will not be comforted." There is no end to the miseries which ensue from intemperance. "Do not the maniac, the dropsical, the liver-grown, meet our eye in every street? Does not the groan of the suicide vibrate on every ear? Do we not see former affluence clothed in the rags of squalid poverty, in every hospital, workhouse, or charity, or wandering *in forma pauperis*, from door to door? Do we not see every tie with which nature, religion, or affection, binds us in social harmony, severed by the intoxicating bowl? Have these and a thousand other examples any operative effect in checking the evil? Little or none." And are they not a series of consequences that are daily augmenting? To the divine, to the philanthropists, and to the patriot are they not alarming? Various have been the societies formed in different parts of the union, for the suppression of intemperance, but with little success; for be assured, that it will still continue to increase, so long as the distillation and importation of such a quantum of ardent spirits is upheld.

It may be urged as an objection, that a free indulgence in wine would be attended with the same injurious results, as that of ardent spirits In answer, we have very cogent reasons to believe that the simple fermented juice of the grape, or *wine*, was the only beverage intended by our creator; but the advancements in the science of chemistry, have disclosed in many of the fruits of the earth, the different salts and spirits which constitute brandy or alkohol, and which were revealed without first considering their moral and political effects, and the means of preventing their inconveniences.

As a medical agent, and as an auxiliary in the various manufactories, it proves to be an invaluable result; but its perverted use already, is more to be lamented than the devastations of war.

It would have been more to the happiness of mankind, had ardent spirits and *wine* been only used as medicinal and chemical agents; but of two evils that have presented themselves, the least should be made choice of—"It is well known," observes the learned Dr Macculloch, "that diseases of the liver are the most common, and the most formidable of those produced by the use of *ardent* spirits; it is equally certain no such disorders follow the intemperate use of *pure* wine, however long indulged in; to the concealed and unwitting consumption of spirits, therefore, as contained in the wines commonly drunk in this country, is to be attributed the excessive prevalence of those hepatick affections which are comparatively little known to our continental neighbours." It may be adduced as a well known fact, that in the different wine countries, the inhabitants are singularly temperate, and the effects daily evinced in our own from intemperance, are unknown amongst them. As for a reformation of the present generation of our country from the habits of intemperance, it is out of the question

"Habits are stubborn things,
And when a man is turned of forty,
The ruling passion's grown so naughty,
There is no clipping of its wings."

However, unless a commencement be made, we can never expect a result; our efforts, as feeble as they are, may be acknowledged in thankful aspirations by future generations, and they may commemorate the era which first gave rise to the successful attempts for the subduing of this "all-besetting sin." Our aim should be to lessen distillation and introduce in its stead that of fermentation, and the only possible manner that can be conceived by us, to diminish the enormous distillation of grain, and consequently the suppression of intemperance, is to command the attention of the growers of the grain, to the planting of the vine, by the pursuit of which, they would find an additional resource to their already vastly acquired means of income. The extent of profit arising from, and the attention necessary in the manufacture of wine, would finally eradicate their anxiety for distillation then we would see their distilleries not polished up for the coming harvest, but lying neglected and unattended, as are now seen very many situations, that are admirably adapted for the cultivation of this most useful and profitable branch of agriculture.

Having no doubt trespassed upon your patience, but the importance of the subject demands it, we claim your indulgence for a few minutes, until we shall have considered another advantage, though last is not the least. That of introducing into our markets for the table, the wholesome and most delicious fruit of the vine. To those who are the guardians of health, it need not be asserted, that most of the diseases of our summer seasons, especially among the poorer classes, are occasioned by the too free indulgence of the varied pulpous fruits daily introduced into our markets. Indeed, with many in these seasons, they constitute their principal food, and the dire effects are evinced in the ravages of cholera, diarrhœa and dysentery, which sweep off their thousands yearly! That those effects would in a great degree be obviated by the grape, is evident, "for the juice of the grape consists of a large proportion of saccharine matter, of the sweet or fermenting principle, which appears to be a modification of the saccharine principle of various acids, especially the tartaric and malic and various ill-defined extractive matters.

"These principles left to themselves in a medium temperature, soon begin to react upon one another, and some of them at length undergo remarkable changes. This process is termed *fermentation*, and constitutes the grand principle of wine making — When this process has begun to subside, it will be found that the greater portion of the saccharine principle has disappeared, and that its place is supplied by a corresponding portion of alkohol or ardent spirit. This is the most striking feature of the change either in quality or quantity. In short, the sweet and crude juice of the grape is found to be converted into wine."

It is evident from the changes this fruit undergoes, that there can arise no such injurious effects, as must supervene from the use of the pulpous; and we might say with propriety, half putrid fruits obtained from our markets. They are not capable of either a spirituous or vineous fermentation, which would in a measure, counteract any deleterious effects upon the animal economy; but susceptible of those peculiar chemical conditions, which are destructive to its healthful actions, and which make it of importance to place some substitute, which will be satisfactorily found in that of the grape

The time allotted having expired, we cannot but thank you for your kind indulgence; but the magnitude and importance of the subject claim a more serious and able consideration than can be given by us, and we hope there is some one in this assembly, who being better qualified, may answer any objections that may be urged against the formation of a society devoted to this particular purpose. Having now done, we trust the cause to your own superior judgments. But *remember* that *perseverance* surmounts every difficulty, and is all that is required to ensure success.

AGRICULTURE.

(From the British Farmer's Magazine.)

ON THE DAIRY HUSBANDRY OF SCOTLAND.

Extract of a letter from William Aiton, Esq.

The district of Cunninghame, in the county of Ayr, has certainly been the cradle of Scotch dairy husbandry. The name *Cuinneag* signifies, in the Gaelic language, the *butter churn;* and *Cuin-neagam*, in that language, means the *butter district.* That this was in early times a dairy district, appears from the vast quantity of cheese paid in tithe to the monastery of Rilurnning for centuries before the reformation. The mode of managing the dairy was then very imperfect—it was so, indeed, in the memory of many yet alive—but the first improvement made in that branch of industry in Scotland, commenced in the district of Cunninghame. It has been stated, that a wife of one of the covenanters, who took refuge for some time in Ireland, during the reign of Charles II., had discovered there the improved mode of making full-milk cheese, and that she had commenced the practice in her native county; but this does not seem to be correct. The Irish have never been famed for making cheese; and that of improved quality was not began to be made in Scotland till near a century after the period referred to. The art of making skim-milk cheese was made known to our ancestors by the Romans, when they held sway in Britain; and no person who could make that species of cheese could fail to perceive, that preserving the cream in the cheese, rendered it richer.

The making of full-milk cheese began to be practised by some farmers in Cunninghame about the year 1760, and the practice did not become general, even in the county of Ayr, till towards the end of last century; but it has been ever since extending, and has now become the universal practice, not only in that county, but also in those of Renfrew and Lanark, and it is also fast extending to other counties.

The dairy breed of Scotland have been formed, chiefly by skilful management, within the last fifty years; and they are still improving and extending to other counties. Till after 1770 the cows in Cunninghame were small, ill-fed, ill-shaped, and gave but little milk. Some cows of a larger breed, and of a brown-and-white colour, were about that time brought to Ayrshire from Teeswater, and from Holland, by some of the patriotic noblemen of Ayrshire; and these being put on good pasture yielded more milk than the native breed, and their calves were much sought after by the farmers. At that time a notion prevailed, that the breed of cows could be improved merely by the use of large bulls: this was a mistaken notion, for wherever large bulls or stallions are put to cows or mares that are inferior in size, or bad habit, the offspring has always had large bones, but were generally ill shaped mongrels. This error served greatly to deform the dairy breed of Ayrshire, till it was corrected by coupling animals more equal in size, and by better feeding. The shapes most approved of in the Ayrshire dairy breed are as follows: head small, but rather long and narrow at the muzzle; the eye small, but quick and lively; the horns small, clear, bended, and the roots at a considerable distance from each other; neck long and slender, tapering towards the head, with little loose skin hanging below; shoulders thin; forequarters light and thin; hind quarters large and capacious; back straight, broad behind, and the joints of the chine rather loose and open; carcass deep, and the pelvis capacious and wide over the hips, with fleshy buttocks; tail long and small; legs small and short, with firm joints; udder capacious, broad and square, stretching forward, and neither fleshy, low hung, nor loose, with the milk veins large and prominent; teats short, pointing outward, and at a considerable distance from each other; skin thin and loose, hair soft and woolly; the head, horns, and other parts of least value, small, and the general figure compact and well proportioned.

The *quantity of milk* the Ayrshire cows yield is not easily determined, without opening a door for quibbling. Many of them give far more than others; all of them give more or less according to the habit they are in, their age, time of calving, mode of feeding, &c. But when every thing is favorable, they give from eight to twelve Scotch pints per day, during the best part of the season; many of them give fifteen, some eighteen, and some twenty Scotch pints (nearly nine gallons and a half) per day, for a part of the season: and there can be no doubt that the better sort of the breed yield, generally, 2,000 Scotch pints in the course of ten months after dropping their calf. Farmers of skill, and who have good pasturage, would not keep a cow that would not give her own weight annually of full milk cheese.

The price of these cows varies much, according to circumstances. In general they sell at from 10*l.* to 15*l.*; many of them have sold at 20*l.* and some of them at 30*l.* and upwards. It is also difficult to speak of the quality of milk, as some cows always give richer milk than others; every cow's milk is affected by the habit she is in, the nearness or distance to her calving, as well as by her food; and the last two gills of milk drawn at every milking will yield more butter or cheese than the first quart taken at the same milking. But, generally, sixty-five Scotch pints of ordinary milk will yield sixteen pounds (of twenty-two ounces and a half per lb.) of full-milk cheese; and eight pints Scotch will give one pound (of twenty-two ounces and a half) of butter.

The first produce of a dairy cow is her half, the next is the milk she yields, and, ultimately, her carcass; the modes of managing these may be shortly noticed.

The calves that are not needed for stock are torned over to the butcher; some of them are fattened from a week or two to three months or more. A calf that has not been fed for some time can scarcely be reckoned human food; but when fed, even for a week or two, it becomes very wholesome fare. The fattening of calves to a certain extent, brings a better return for the milk so applied, than it can do when made either into butter or cheese. The price of a calf, newly dropt, is generally from 5*s* to 7*s.*; but if fed upon its mother's milk for five or six weeks, the calf will give from 2*l.* to 4*l.*, according to the price of veal at the time; if kept longer than six weeks, the calf would require to have more than the milk of one cow, and the feeding does not pay so well after as it does before the calf exceeds that age. Many calves have been fed about Strathaven, in Lanarkshire, until they were upwards of three months old, and the following prices have been obtained for some of them. viz. T. Hamilton, of Greathill, near Strathaven, obtained, in 1765, when the price of veal did not exceed three-pence per pound avoidu poise, 5*l* for a calf: it would have given, at some periods since, nearly three times that sum. James Alston, of Muirburn, in that neighbourhood, fed, in 1798, a calf that weighed sixteen stones, (of sixteen pounds per stone, and twenty-two ounces and a half per pound,) of saleable veal, and which at that time would bring in the Glasgow market, 17*l* 2*s.* 4*d* besides hide, head and intestines. James Graoger, of Netherfield, esq., Thomas White, of Tweedlehall, esq., and William Young, of Newtown, all near to Strathaven, obtained each of them 10*l* or upwards, for calves they had fed, and at a time when the price of veal was one-third lower than it has sometimes been. In 1815, Mr. Strang, of Shawtoo, fed a calf to the gross living weight of *thirty-five stones,* (of sixteen pounds per stone, and sixteen ounces per pound;) Mr. Strang was offered 14*l* for the saleable veal of this calf, and its hide and offal would have brought him from 30*s* to 40*s.* more. He did not accept of that price, and ultimately lost the calf by mismanagement. William Granger, of Dikehead, also in the same neighbourhood, fed a calf, in the year 1819, to the weight of *twenty-two stone nine pounds* (twenty-two ounces and half per pound, and sixteen pounds per stone,) of saleable veal in the four quarters. This at ten pence per pound, the price at that time, brought the butcher 15*l.* 1*s.* besides offal; and at the price of some former years, this calf would have brought 25*l.* sterling, or upwards, in the shambles. There were two calves killed in the Hamilton market within the last four months that weighed, each of them, *fourteen stones,* imperial weight, of saleable veal in the four quarters. Other instances might be given, but these are sufficient to show to what perfection the feeding of calves has been brought in the western parts of the county of Lanark.

The mode of feeding is simple and easy. The calves are not allowed to sockle, but are taught to drink their milk from a dish, with an artificial teat, or the finger of the dairy maid put into their mouth under the surface of the milk in the dish. The use of this is to make them drink their milk slowly, so that a due proportion of saliva may be secreted.—They are fed twice every day, and get nothing but milk warm from the cow. If the calf becomes costive, some bacon or mutton broth is given them in their milk, and if they begin to scour, a small quantity of rennet (used to coagulate milk) cures that disorder. Or a lump of chalk laid before them to lick at will also cure the looseness, and enable the animal to swallow more of its saliva. These calves are neither bled, nor is any physic given to them, in order to render the lights of flesh white; that is best accomplished by feeding them on water gruel for two or three days before they are killed. The calves are kept with plenty of dry straw under them, and a considerable portion of the light is excluded, that they may not injure themselves by becoming too sportive.

ON CLIMATE.

(Concluded from page 122.)

The evidence on this subject becomes more distinct and incontrovertible, when we confine our views solely to Italy, unquestionably the best cultivated spot in that whole range at this early period.—The Roman legions regularly went into winter quarters, because that season of the year presented an insuperable bar to military operations; and the odes of Horace lead us to believe not only that the streets of Rome were filled with ice and snow, but that the surrounding country was so bound up with frost as to stop the labours of the plough. Virgil too in his Georgics every where alludes to the severity of the winter, prescribes precautions against its rigours, and casually drops some insulated facts of a most decisive character.

nam frigore mella
Cogit hyems, eademque calor liquefacta remittit.

I shall close this long and perhaps too learned and ostentatious dissertation by citing the authority of Juvenal in his 6th satire, to prove the nature of an Italian frost. The Roman matrons in obedience to the priests were obligated even in the depth of winter and early in the morning, to perform ablutions in the sacred waters of the Tyber, and for this purpose the ice had to be broken.

> Hybernum fracta glacie descendet in amnem
> Ter matutino Tyberi mergetur.

The Tyber nowadays is no more bound with such fetters than the Ganges or the Nile; and cannot furnish to the moderns such opportunities of showing their zeal and devotion.

These views, which I have exhibited of the ancient state of Europe and Asia, would be still farther strengthened, could we only discover the physical causes, which are adequate to produce the immense change that has been effected. These are chiefly three in number, and require only a very brief illustration.

The extirpation of the forests and the draining of the morasses give free scope to the influence of the solar rays.--When a territory is shaded with a canopy of continuous trees, the leaves and the branches intercept the beams of the sun in their pssage downwards, and prevent them from communicating the heat felt in open situations.--The superabundant moisture too with which the ground is soaked; the stagnant waters which are collected in the levels; and the marshes which are formed, not only rise in clouds and fogs to obscure the sky, but in reality cool down the natural heat of the earth. No operation can take place without the expense of caloric; and moist ground, on that very account, is always much colder than dry. Let any man, at this season, lay his hand upon the mould in his garden at midday, and thence pass quickly into the neighbouring woods, and there touch the ground steeped in sap, and overhung with tangled coppice, and he will be made sensible without farther argument of the vast difference which must exist, in the temperature of a cleared and cultivated region, and of a boundless and woody waste.—The leaves when acted upon by the rays of the sun offer resistance from the principle of vegetable life, and perspire in proportion to the heat to which they are subjected. Not so the earth—Its inert matter presents a sluggish and impassable surface, and imbibes that quantity of heat which streams from the noontide day. This heat of the ground sets in motion the nutritive juices, aids the process of putrefaction, awakens into life the vegetable kingdom, and, from its contact with the circumambient air, diffuses a kindly warmth throughout all nature. Conformably to these general views, we find that the frost continues long in the woods after it has disappeared in the open intervals; and that snows will be met with in sheltered recesses as late as the month of June. When our forests are cut down and the naked bosom of the earth bared to the heavens, we shall have no concealed magazines of ice, snow, and fogs to chill our atmosphere and blast the tender blossoms of the spring.

I observe further, that the very increase of population becomes a source of heat—Man and all other creatures are so constituted as to preserve in their own bodies a mean temperature. The mechanism, by which this animal heat is evolved and sustained, is curious and instructive; but suffice it to state, that however cold the air which is inhaled, it is thrown back from the lungs considerably heated.—Expiration in this way becomes a source of warmth even more than perspiration; and hence we can account for the glow which is felt on our entrance into a ball room as well as into a stable. The denser a population in any country, the more of this animal heat must be created and set afloat. Not only man, but the irrational companions of his pleasure, and the victims of his table are constantly pouring into the atmosphere a stream of tepid air, which instantly mixes with and affects the general mass.

Further, the purpose of cookery, and the rigour of winter, occasion in a well-peopled country an immense number of fires to be constantly kept burning. These after warming the inner apartments, escape at the top of the chimnies, and expend chiefly their influence in the regions of the atmosphere. The heat which arises from such cities, as London, Paris, or Vienna, has a sensible effect on the country around, which is visible in winter in the quick melting of the snows.--The hoar-frosts seldom fall on the houses and streets, although they are at a great distance whitening the mountain and the valley.--This source of heat dependent upon population must have now a powerful effect in tempering the climate of Europe, covered as it is in every direction with farm houses, villages and cities; and little upon a province like this, whose whole inhabitants are often compressed in England upon a square acre.

I observe lastly, that the operations of agriculture are themselves productive of heat. It is now pretty generally acknowledged, that the process of putrefaction is indispensable in order to change manures into the proper food of plants, and that vegetables as well as animals live upon one another. Whatever has once enjoyed life, and breathed either by lungs or leaves, may be reduced to its elementary principles, and in this way afford nutriment to succeeding races and tribes. The present order of things is but a system of composition and decomposition, subjected to regular laws, and turning round the same circle of vicissitude. But in the dissolution of all organized bodies, a quantity of heat is invariably disengaged; and it is on this account that a farm-yard is perpetually emitting a warm vapour This process of evolving heat is also constantly carrying on in the ground itself, when stored with lime and other manures, during the whole progress of vegetation. The new crop is living on the dissolution of former vegetables supplied to it in the shape of dung; and as these are going into gradual decay, the soil warms with the caloric they give out. Hence in northern climates, snow always disappears soonest on the richest lands; and melts as it falls, on a dunghill in a state of active putrefaction.

These three causes, two of them the sources of an artificial heat distinct from that of the sun, seem perfectly sufficient to account for the mighty change, which the climate of Europe and Asia has undergone for the last 2000 years, and they will in time, (for they are already in operation) work here similar miracles.

AGRICOLA.

HORTICULTURE.

ARRACACHA.

Transactions of the Agricultural and Horticultural Society of Jamaica.

SOME ACCOUNT OF THE ARRACACHA, WITH A DESCRIPTION OF ITS BOTANICAL CHARACTERS.

(*Concluded from page 124*)

I shall now proceed to give a description of the particular kind of arracacha which has been introduced into this island—

The root is annual, fleshy, solidly tuberous and furnished on the outside with numerous knobs; it is of a light yellow colour internally, and grows to the size of eight or nine inches in diameter.—Those knobs are of two sorts; the one are comparatively small, proceed from the upper surface, or crown of the root inclining upwards, give off each several gems or shoots towards the top, and are marked about the base with horizontal rings bearing thin membraneous sheaths that gradually wither away. The other or larger and edible sort, grow on the outside and below those just mentioned, to the number of eight or ten, besides small ones, and descend into the earth; the largest measure eight or nine inches in length, by two and a half inches in diameter, and are nearly of the same circumference throughout, tapering off suddenly, and sending out a few small fibres at the extremity Their surface is nearly smooth, and covered with a thin pellicle marked across with some transverse cracks like carrots. These latter knobs are called "Hijos," i. e. sons, in Bogota, and are the roots generally preferred for the table, being more tender and more delicate in flavour than the main root, or "Madre" mother One root sent to me from St David's, which had the greatest part of the mother root, and all the upper knobs with their shoots cut off, as well as a large "Hijo" broken off, was found to weigh eight pounds.

The stem is herbaceous, upright, round-jointed, hollow between the joints, sparingly branched, smooth, striated, streaked with purplish lines, and grows in general to the height of two feet and a half or three feet, sometimes of four feet, and to the thickness of half an inch, or a little more in diameter at base. It has usually seven or eight joints, and gives off floriferous branches in the axillæ of the leaves, and at the two or three uppermost joints becomes trichotomous.

The radical leaves are usually two, sometimes three in number, petiolated, ternato pinnate, (the middle leaflet being nearly twice longer than the lateral ones,) smooth, shining and nerved on both surfaces, veined on the under surface, and measure without the petioles, from six to nine inches in length; the leaflets are pedicelled, lanceolate, inciso-serrate, (the teeth in most plants having the points yellow;) the leaflets sessile. The petioles of the radical leaves are sheathing at base, sub erect, cylindrical, smooth, striated, and from ten to fifteen inches long; their sheaths are eared at the upper end; the pedicels are channelled.

The leaves of the stem, alternate at the lower joints, but opposite at the upper, are smaller than the root leaves, but resemble them in every other respect.—Their petioles are about six inches long, but otherwise similar also to those of the root leaves.

The general Umbels are terminal and axillary, pedunculated, plano-convex, and usually bear from ten to twelve spokes. The involucre, when there is any, consists of one awl-shaped, carneous leaf, sometimes of two. The peduncles are round, striated, smooth, streaked with purple, and vary in length; those from the lower axillæ measuring from twelve to eighteen inches, those from the upper axillæ six or eight inches, and the terminal ones but an inch or two.

The partial Umbels are flattish; and bare from ten to thirty spokes, striated and channelled; the partial involucres are persistent, more or less halved towards the circumference, and formed of from three to eight leaves, awl-shaped, unequal, spreading, and shorter than the spokes.

The flowers are small, and, at first, of a light yellow colour, which usually changes to a reddish purple. The greater part of the florets are barren; and in these the corollas do not expand, but fall off in a closed state. The stamens have the filaments at first green, afterwards purplish; the anthers are comparatively large, resembling two eggs joined by the side, and of a bright yellow; they open on the outside, emitting a pollen of minute white globules. The styles change in like manner from green to purple; their stigmas however are whitish and semi-transparent. In the barren florets there are only rudiments of the styles. In those florets, which, to judge from appearances, might be thought fertile, the fruit continues to grow until it arrives at its full size, when it begins to wither, the seeds being very seldom, as it appears, perfected. And this it may be presumed, is the habit of this plant, which throws out shoots in luxuriant abundance, by which it is easily propagated, and the perfecting of the seed rendered unnecessary. I am accordingly told that it is never raised from seed by those who cultivate it largely in its native country; and in this island, when the most perfect, in appearance, of the seeds produced here have been sown, they have all failed. They are, however, of a large size, compared with those of most umbelliferous plants; some before me measure three eighths of an inch in length

Of the Arracacha, I understand that there are four kinds, but I have not yet been able to learn whether these are to be considered as distinct species, or only varieties. The sort introduced here, is that called yellow, from the colour of its root, and this, I am assured, is the kind most esteemed in Bogota. Another sort has a white root; and there are two sorts with purplish roots, one of which, I am told, is also much eaten, and is said to be equally liked at Antioquia, with the yellow sort; the other purple-rooted sort is, I learn, of a coarse quality, and not used for the table, though it is often employed for poultices, &c. Of the last three sorts, the only one with which I have had any opportunity of becoming acquainted, is the purple kind first mentioned, Mr. Higson having favoured me with a small dried specimen of it, which he lately brought over from Choco: upon comparing it with a specimen of the yellow Arracacha, the only differences I could discover were, that in the former the leaflets are broader, and more deeply incised, and the middle leaflets shorter in proportion than those of the yellow kind; but these, from a single specimen only, are not sufficient to decide the point in question It must, therefore, be left for others to determine the specific characters of the yellow Arracacha, as well as to bestow on it a more appropriate specific name, if that of A. Xanthorrhiza, which I would now propose, should be deemed objectionable, as it must be, should the yellow sort prove to be only a variety, and not a distinct species.

In regard to the cultivation of this plant, the mode practised in Bogota, (which I have every reason to believe has proved equally successful here) is, after separating the upper tubers, or knobs from the root, to detach from these the offsets singly, each with its portion of the substance of the tuber, which is then to be pared smoothly all round at bottom, the outer leaves being stripped or cut off, so as to leave a sprout of from half an inch to two or three inches at the most. If any gems or eyes be seen at the base of the offsets, they must carefully be cut out. Thus prepared, the shoots are planted in loose mould, in a slanting direction at distances of fifteen or eighteen inches from each other, whether the ground be level or sloping. Afterwards at intervals of about two months the soil ought to be weeded; and when the plants have grown to the height of ten or twelve inches, or whenever they show a disposition to blossom, the budding tips should be taken off, as the process of flowering would hinder the root from attaining its greatest size, care being taken not to take off more than the budding extremities, least the growth of the root should thereby also suffer. With the same view any luxuriance in the growth of shoots should be prevented, since it must be at the expense of the root From time to time, and particularly after weeding the ground, fresh mould should be laid round the foot of each plant, to aid likewise in the enlargement of the root.

In favourable situations the Arracacha, as I am told, will reach its full growth in six months. It does not seem to require a rich soil, or much moisture, since here, on a loose, but poor soil in the St. Andrew's mountains, where very little rain fell from the time it was planted until it was full grown, it throve and reached maturity in the space of eight months. The soil which is suitable for yams appears to answer equally well for the Arracacha.

In Bogota and Popayan they obtain a succession of Arracacha through the whole year by planting shoots at every decrease of the moon.

When the root is full grown, and taken out of the ground, it will scarcely keep beyond two or three days; but it possesses, I learn, this useful quality, that if instead of being taken up it be allowed to continue in the ground, it will keep perfectly sound, even for months, although without any material increase of size.

The root rasped, and macerated in water, deposits a fecula, which in Bogota is in very general use as a light nourishment for the sick, in the same manner as the fecula of the Maranta Arundinacea, or arrow root, is used in this island.

(From Prince's Treatise on Horticulture.)

CACTUS.

Of this genus there is an immense number of species, forming a family of succulents of very peculiar characters, many of which produce extremely beautiful flowers. The most common is C. flagelliformis, or Creeping Cereus, which has fine rose coloured flowers. There are also C. speciosus, with large showy flowers of a rose colour; and C. triangularis, producing a great number of beautiful flowers. But the most interesting are C. grandiflorus, or Great Night Blooming Cereus, with very large yellow flowers; and C. speciossissimus, which latter exceeds all others; the flowers of this species are of the most superb velvet crimson, and measure five inches or more in diameter. In fact, the flowers far exceed every other species in magnificence. The culture of this genus is not difficult—they require a warm situation, and to be but little watered in the winter season; and the most of them may be propagated from cuttings with ease.

CLEMATIS FLORIDA,

Or Great Japan Virgin's Bower.

The flowers of this exceedingly fine species are white, and very large. They expand during the summer months, and are produced on peduncles springing from almost every joint of the long and delicate shoots of this vine, and give to it a great degree of beauty. These shoots may be trained to the length of 12 or 15 feet over a lattice or bower, and in winter can be taken down and formed in a coil, and be covered by a common frame or box, with the earth raised around it, which I have found sufficient protection for it during the winter months. Indeed, this is by far the preferable mode of treating it; as in a pot it is stinted in its growth, whereas in the open ground it attains to a full developement There is a single and a double variety, the latter of which is far the most beautiful.

[It was a very splendid one of this species, in the beautiful collection of our worthy and liberal fellow citizen, Mr. B I. Cohen, which was lately exhibited by his permission in the Athenæum, for the *most* laudable purpose of assisting the Female Orphan Asylum, by which that Institution obtained more than $60 in one evening]

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Address from the President and Directors, on the laying of the First Stone, by Charles Carroll of Carrollton, July 4th, 1828. Delivered by JOHN B. MORRIS, Esq.

FELLOW CITIZENS:

The occasion which has assembled us, is one of great and momentous interest. We have met to celebrate the laying of the first stone of the Baltimore and Ohio Rail Road, and if there be any thing which could render the day we have chosen more interesting in our eye, than it already seems, it is, that we now commence the construction of a work which is to raise our native city to that rank which the advantages of her situation and the enterprise of her citizens entitle her to hold The result of our labours will be felt, not only by ourselves, but also by posterity,—not only by Baltimore, but also by Maryland and by the United States. We are about opening the channel through which the commerce of the mighty country beyond the Alleghany must seek the ocean—we are about affording facilities of intercourse between the east and the west, which will bind the one more closely to the other, beyond the power of an increased population or sectional differences to disunite. We are in fact, commencing a new era in our history; for there are none present who even doubt the great and beneficial influence which the intended road will have in promoting the Agriculture, Manufactures and inland commerce of our country. It is but a few years since the introduction of steam-boats effected powerful changes, and made those neighbours, who were before far distant from each other. Of a similar and equally important effect will be the Baltimore and Ohio Rail Road. While the one will have stemmed the torrent of the Mississippi, the other will have surmounted and reduced the heights of the Alleghany; and those obstacles, before considered insuperable, will have ceased to be so, as the ingenuity and industry of man shall have been excited to overcome them.

Fully impressed with the magnitude of the undertaking committed to their charge, the Board of Directors have used every means to insure success—The best talent of the country is employed in their service:—the General Government has lent its officers to assist in what is justly considered a work of national importance:—much valuable information has been acquired, and with abundant resources at their command, the Board of Directors find themselves within little more than a year after the incorporation of the Company, fully prepared to commence the construction of the GREAT ROAD

It is not in mortals to command success; but if a determination to yield to no obstacles which human exertion can overcome; an enthusiastic devotion to the cause; a firm belief that the completion of the magnificent work will confer the most important benefits upon our country, and a thorough conviction that it is practicable—if all these, urging to action, can insure success—success shall be ours.

This day fifty-two years since, two millions of people, the population of the Provinces of Great Britain proclaimed themselves Independent States, and commenced the task of self government. Our native city was then an inconsiderable village, with few and difficult means of communication with the interior, and with a scanty and slowly increasing commerce. The inhabitants of these states now number ten millions! and Baltimore has increased to her full proportion of population. Wide avenues now radiate in every direction through the surrounding country:—she has risen to the rank of the third city of the Union, and there are but few sections of the world where her commercial enterprise has not made her known. Fifty-two years since, he, who is this day to lay the first stone of the *Great Road,* was one among a band of fearless and noble spirits who resolved and declared that freedom which has been transmitted unimpaired to us.

The existence which he contributed to give to the United States on the Fourth of July, 1776, on the Fourth of July, 1828, he perpetuates. Ninety one summers have passed over him Those who stood with him in the Hall of Independence, have left him solitary upon earth—"the father of his country." In the full possession of his powers; with his feelings and affections still buoyant and warm, he now declares that the proudest act of his life and the most important in its consequences to his country, was the signature of Independence; the next, the laying of the First Stone of the work which is to perpetuate the union of the American States; to make the east and the west as one household in the facilities of intercourse, and the feelings of mutual affection.—Long may he live, cherished and beloved by his country, a noble relic of the past, a bright example of the present time.

The following gentlemen have been chosen Officers of the Chesapeake and Ohio Canal Company:

PRESIDENT.

Charles Fenton Mercer, of Virginia.

DIRECTORS.

Joseph Kent, of Maryland.
Andrew Stewart, of Pennsylvania.
Walter Smith, of Georgetown.
Phineas Janney, of Alexandria.
Frederick May, } of Washington.
Peter Lenox, }

LADIES' DEPARTMENT.

RAISING OF POULTRY.

J. S. Skinner, Esq.

Aunt Hester is a woman of strong mind and of practical experience, but she has some old tangled notions. I will give you some of them, and you can dispose of them as you please, the community may then laugh at them without inquiry, or they may profit by them if she is not mistaken

Aunt Hester was descanting on feeding young poultry to death, us youngsters of course treated it as the whim of one of settled habits, taken up, they did not know why, and persevered in because it was habitual. Well, said she, I will give the best reasons for it I can, and you may then make the experiment if there is any weight in my reasons, or you may continue to jar at my old notions. My own experience, said she, is, that a hen with a brood of 15 chickens turned loose, and compelled to shift for her young, will raise 12 or 13 of them, a hen with the same number constantly fed will not raise five. These facts caused me to inquire with myself, as to the reasons why it was so, and whether my conclusions are right or not. they are the most rational I can form. The hen left to herself when hovering her brood, knows that when the chickens leave her wings, that she is to start out with them to perform labour to procure them food, and continues hovering them until they invite her forth. The hen who performs no labour is restless the moment she feels hunger, and before her brood are thoroughly warmed after a chill dew, she starts forth to the place of feeding, and the debilitated young which had not the most favorable place for warmth, (being weaker and kept at the outer side,) are left draggled and chilled, and the worms in the windpipe feeling a portion of the cold, contract themselves into a knot, hence gapes and death. Another result, she said, might be the cause of too much feeding, it would force out the pen feathers when the brood was too young, and forcing out too large a crop of pens at one time would be hurtful, as it required too much of the blood to fill the quills, and produced debility and a susceptibility to cold. So much for this branch of the business.

Aunt Hester remarked, that a hen hatching her own eggs, or all the eggs from the same hen, would raise more of the brood than if the eggs were from different hens. The youngsters all cried out moonshine and witchcraft.

Well, said aunt Hester, I know that the wisdom of the earth has exploded the influence of the moon on vegetation, but so far as I am able to sustain my opinions about my chickens, I will give them to you. My experience has proved what I assert, and it therefore only belongs to me to give the probable reason why it is so. An entire brood from the same hen will all alike be constitutionally sensitive to cold, will all wish to be hovered about the same time, and will become invigorated by the same warmth. Those of different hens will be some more, some less sensitive to cold, those requiring less hovering will leave the wings, run about and induce the hen to walk about before the others are sufficiently warmed, debility, gapes and death overtake the weaker. Aunt Hester says a maiden hen's eggs may be sat on a month or more, and remain as pure as the day they were laid. If any one chooses to make the experiment let him get a young guinea fowl before it is grown, and have no others on the place, when she lays put the eggs under a common hen, and examine them by breaking one every two or three days.

It is confessed that when aunt Hester, had gone through her practical experience, and given her reasons, that we youngsters felt rather flat, but jogged her memory about the influence of the moon on vegetation, &c.

Moon, its Influence on Vegetation.

Aunt Hester remarked, that this was a subject which she could not approach with the same confidence, with which she had the preceding, and being pressed for some reasons she retorted, can you tell me the reason why a sun-glass, if one half of it is hid from the sun, or from the moon, and held three or four inches from an object, will give you a half circle of light on the object, and leave the shadow of the concealed part of the glass on the same side where it is covered; that is, cover the lower half of the glass, and the half circle of light will be on the upper part of the object, then withdraw the glass 12 or 18 inches, (still keeping the same part covered,) beyond the focus distance, and you will have a half circle of light on the lower part of the object? The youngsters controverted the fact, but upon trial it was found correct. Well, said aunt Hester, account satisfactorily to me for this, and I hope to receive some insight into my opinions about the moon's influence, you youngsters tell me light has an influence on vegetation. I presume it is so, because light sets in motion the fluid which plants feed on, light lifts these fluids from the ground to the leaves, but let the moon's light cease to lift these fluids and they remain on the earth, and are food for the roots of plants; hence the effect some suppose the moon has on different classes of vegetation, the root class in the dark of the moon, and the vine class in the light of the moon.

Well, said one, Mr. Skinner gets this, aunt Kitty, and 'ill engage you are peppered off. Pepper away, said she, but before a paper of the extensive circulation of the American Farmer, and of the just celebrity it has attained, having for its object a candid investigation of all subjects of moment to the farmer, I say, before this paper shall fall on us for entertaining an exploded opinion, I hope that a premium will be offered to botanists, for the most minute register of plants, sown or planted in every stage of the moon, and if it shall in fact turn out that there is reason to believe that the moon has its influence on them, that the register be published in the Farmer, this will open a field to another class of men, chemists, who may also be encouraged to give us the best reasons why it is so. Some of the arts have degenerated, some are lost, may not a thorough knowledge of the moon's influence on vegetation have generated the idea, which prevails amongst the *vulgar* For patience, said I, stop until I can write this far. Well, said aunt Hester, if you are determined to put me in the Farmer, beg of Mr Skinner to have me decently handled, if there is any who will not pause and inquire into this matter

TONY

[For the best register so kept, the Editor hereby offers as a premium, that volume of the American Farmer well bound, in which the communication of the results shall have been published—in the mean time. Aunt Hester may be assured of due protection and fair play.]

SPORTING OLIO.

(For the American Farmer.)

Distemper in Horses and Dogs.

It is seldom that we meet with a scientific, or even a rational account of the diseases of animals. We have *names* and prescriptions for *names*, but we have no such *description of diseases*, as will enable their distinctive characters to be understood. The following notice of a common disease, known by the names of *distemper* and *influenza* in some stages, and by that of *glanders* in its last and worst, is extracted from the Zoonomia of the celebrated Dr. Darwin.

T.

The Catarrhus Contagiosus

Is a frequent disease amongst horses and dogs; it seems first to be disseminated amongst these animals by miasmata, diffused in the atmosphere, because so many of them receive it at the same time; and afterwards to be communicable from one horse or dog to another, by contagion as above described. These epidemic or contagious catarrhs more frequently occur amongst horses and dogs than amongst men; which is probably owing to the greater extension and sensibility of the mucous membrane, which covers the organ of smell, and is diffused over their wide nostrils, and their large maxillary and frontal cavities. And to this circumstance may be ascribed the greater fatality of it to these animals.

In respect to horses, I suspect the fever at the beginning, to be of the sensitive, irritated, or inflammatory kind, because there is so great a discharge of purulent mucus, and that therefore they will bear once bleeding in the early part of the disease; and also one mild purgative, consisting of half an ounce of aloes, and as much white hard soap, mixed together. They should be turned out to grass both day and night for the benefit of pure air, unless the weather be too cold, (and in that case they should be kept in an open airy stable without being tied,) that they may hang down their heads to facilitate the discharge of the mucus from their nostrils. Grass should be offered them, or other fresh vegetables, as carrots and potatoes, with mashes of malt, or of oats, and with plenty of fresh, warm or cold water, frequently in the day. When symptoms of debility appear, which may be known by the coldness of the ears or other extremities, or when sloughs can be seen on the membrane which lines the nostrils, a drink consisting of a pint of ale, with half an ounce of tincture of opium in it, given every six hours, is likely to be of great utility.

In dogs, I believe the catarrh is generally joined with symptoms of debility early in the disease. These animals should be permitted to go about in the open air, and should have constant access to fresh water. The use of being as much as may be in the air is evident, because all the air which they breathe passes twice over the putrid sloughs of the mortified parts of the membrane, which lines the nostrils, and the maxillary and the frontal cavities; that is, both during inspiration and expiration, and must therefore be loaded with contagious particles. Fresh new milk, and fresh broth should be given them, very frequently, and they should be suffered to go amongst the grass, which they eat as an emetic, and if possible should have access to a running stream of water, as the contagious mucus of the nostrils both of these animals, and of horses, generally drops into the water when they attempt to drink. Bits of raw flesh, if the dog will eat them, are preferred to cooked meat, and from five to ten drops of tincture of opium may be given with advantage, when symptoms of debility are evident, according to the size of the dog, every six hours. If sloughs can be seen in the nostrils, they should be moistened twice a day, both in horses and dogs, with a solution of sugar of lead or of alum, by means of a sponge fixed on the end of a whalebone or by a syringe. The lotion may be made by dissolving half an ounce of sugar of lead in a pint of water.

Ancient philosophers seem to have believed, that the contagious miasmata in their warm climates affected dogs and horses previous to mankind. If those contagious particles, were supposed to be diffused amongst the heavy inflammable air, or carbonated hydrogen of putrid marshes, as these animals hold their heads down lower to the ground, they may be supposed to have received them sooner than man. And though men and quadrupeds might receive a disease from the same source of marsh putrefaction, they might not be afterwards capable of communicating the infection to one another, though they might infect other animals of the same genus, as the new contagious matter generated in their own bodies, might not be precisely similar to that received, as happened in the jail fever at Oxford, where those who took the contagion and died, did not infect others.

"On mules and dogs the infection first began,
And, last, the vengeful arrows fix'd on man."

MISCELLANEOUS.

THORN HEDGES.

Observing in the American Farmer, vol. 10. No. 15, the following inquiries which I will endeavour to reply to:

"What is the best kind of thorn for hedges, their cost per rood, where can they be purchased, and what is the best season to plant them?"

I am most in favor of the kind called the Washington or Virginia Thorn. Ten years ago, having heard a favorable account of this kind of thorn, I planted a hedge about forty roods long, which is now a complete fence against cattle and hogs, without any wooden fence, and is a great ornament to the estate, and with a little attention, will be everlasting.

From the effect of this experiment, Sinclair and Moore (Pratt street wharf, Baltimore,) are raising largely of the quicks of this kind of thorn, and have them two years old, very thrifty, and well grown. Price $5 per thousand, lower if many thousand are taken; the quantity necessary per rood may be calculated, allowing them six inches apart in the hedge. The best season for planting is late in the fall, or early in the winter, especially on mellow soils; but early in the spring is also a good time, and best on stiff wet land. The quicks can be also purchased of J. Peirce, near Georgetown, D. C.

Balt. 6mo. 28, 1828. ROB'T SINCLAIR.

CANCER.

Mr. Thomas Tyrrell, of Missouri, advertises that a cancer upon his nose, which had been treated without success by Dr. Smith of N. Haven, and the ablest surgeons in the western country, had been cured in the following manner. He was recommended "to use a strong potash, made of the ley of ashes of Red Oak bark, boiled down to the consistence of molasses, to cover the cancer with it, and in about an hour afterwards cover this with a plaster of tar, which must be removed after a few days, and if any protuberances remain in the wound, apply more potash to them, and the plaster again, until they all disappear; after which, heal the wound with any common salve." Cautery and the knife had been used in vain. This treatment effected a speedy and perfect cure.

SUGAR.

The manufacture of sugar from the Beet, continues to flourish in France. It is stated that there are more than sixty manufactories for the purpose in that country. Three establishments of the kind were recently formed on a large scale.

THE FARMER.

BALTIMORE, FRIDAY, JULY 11, 1828.

Our readers have been entertained by so many glowing descriptions of the manner in which the late anniversary of our national independence was celebrated, that no room is left even for imagination to add a feature, or give brighter colouring to the picture. Never were arrangements more judiciously planned, nor more happily executed, than those which were devised in Baltimore, to combine with the great national rejoicings, the ceremonies for commencing the Baltimore and Ohio Rail Road.—The Grand Marshal, Col. Samuel Sterett, and his aids Messrs. Henry Thompson, S. Moore and J. Thomas, are entitled to the thanks of the many thousands who, whether as actors or spectators, were indebted in a great measure to their forecast for the general order, personal comfort and exemption from accident, with which the whole proceeding was conducted. To a population of eighty thousand citizens, many thousand more were added from the country, to walk in, or to witness the procession, which extended from two to three miles. We have not room for a detailed account of it, nor is it necessary to add, that the point of most extensive and universal attraction, was the leading car bearing the patriot father of revolutionary worthies, the time honoured and only surviving signer of the declaration of independence, CHARLES CARROLL of CARROLLTON, accompanied most appropriately by our venerable Senator, S. SMITH, whose blood was shed for its achievement.

From the American which contains a very minute and faithful detail of what passed, we extract what relates to the part borne by the Farmers, as being more appropriate to this paper.

FARMERS AND PLANTERS.

At the head of this body, on horseback, and in double files, were seen *twenty-four* aged and respectable farmers, corresponding with the number of the states of the Union. One of these carried a banner on which was inscribed—

"*The wilderness and the solitary place shall be glad, and the desert shall rejoice and blossom as the rose.*"

Then followed a stage or platform, bearing a plough, guided by General Tobias E. Stansbury, and driven by Mr. George Harryman. In front the stage was ornamented with two living mulberry trees, bearing numbers of the cocoon of the silk worm; and in the rear were seen growing stalks of corn, &c. On the right of the stage was displayed the flag of the Union, and on the left a staff surmounted by a Liberty Cap, on one side of which was the motto "*E pluribus unum,*" and on the other, "*Where Liberty dwells there is my country.*" In the centre of the stage was a banner with the motto—"*Our swords are beaten into plough-shares, and our spears into pruning hooks.*"

Then followed Colonel Nicholas M. Bosley, the Seedsman, on horseback, dressed in homespun. His shoulders were ornamented with epaulets of the heads of timothy-grass and wheat, and from his shoulders was suspended a bag of grain, which he sowed as he passed along. In his left hand he held a banner with this inscription:—"*He who soweth good seed shall reap abundantly.*"

A second stage succeeded on which was a Harrow, held by Mr. John Scott. In front was a flag with the motto—"*Paul may plant; and Apollos water, but God giveth the increase.*"

A third stage followed, containing sheaves of wheat and rye, and farmers engaged in the business of harvesting. The farmers on this stage were Mr. Wm. Jessup, reaper; Mr. Lee Tipton, cradler; and Mr. Nicholas Gatch, raker and binder. The banner contained the following motto—"*Behold the day is come. Put ye in the sickle and reap, for the harvest is ripe.*"

On the fourth stage were seen Messrs. Elias Brown and James Turner, threshing wheat and rye. At the other end were a Wheat Fan and a Straw Cutter, both of which were kept busily in operation.—The winnowers were Messrs. William Scharf and James W. M'Culloch; the straw cutter was Mr. Upton Reid; the feeder, Mr. John J. Bayley; and the clearer, Master John H. Scharf. On the banner was inscribed this motto—"*He thresheth in hope, and is a partaker of his hope.*" Over the wheat fan was this motto—"*He will gather the wheat into his garner, and the chaff he will burn.*"

The fifth stage closed the procession of the farmers. On it was a handsome apple tree, with a living grapevine growing among its branches. Under the tree was a fine milch cow, with a person employed in milking. At one end of the stage was a pen with pigs. Mr. Noah Underwood was on the stage, engaged at the churn. On a banner over the vine, was this motto—"*Every man may sit under his own vine and fig tree, and none shall make him afraid.*" Over the cow floated a banner with this motto—"*A land flowing with milk and honey.*" It is but just to add that this stage was furnished and arranged at the sole expense of Mr. Underwood, the proprietor of the justly celebrated dairy at Orange farm.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

The demand for tobacco continues limited, and little variation in prices since last week's quotations.

TOBACCO.—Scrubs, $3.00 a 6.00—ordinary, 2.00 a 3.00—red, 3.00 a 5.00—fine red, 5.00 a 7.00—wrapping, 6.00 a 10.00—Ohio ordinary, 3 00 a 4.00—good red spangled, 5.00 a 6.00—yellow, 6.00 a 9.00—fine yellow, 10.00 a 20.00—Virginia, 2.50 a 8.00—Rapahannock 2.75 a 3.50 Kentucky, 3.00 a 5.00.

FLOUR—white wheat family, $6.00 a 6 50—superfine Howard-st. 4.62½ a 4.75; city mills, 4.37½ a 4.50; Susquehanna, 4.37½ a 4.50—CORN MEAL, bbl. 2.50—GRAIN, best red wheat .80 a .85—best white wheat, .90 a 1.00—ordinary to good, .75a.80—CORN, .36 a .38—RYE, .50—OATS, 20 a .22—BEANS, .90 a 1.10—PEAS, .40 a .50—CLOVER SEED, 3.50 a 3.75—TIMOTHY, 1.50 a 2.25—ORCHARD GRASS SEED, 2.25 a 3—Herd's 1 00 a 1.50—Lucerne 37½ a .50 pr. lb—BARLEY, .60 a 62—FLAXSEED, .75 a .80—COTTON, Va. .9 a .11—Lou. .13 a .14—Alabama, .11 a .12—Mississippi .10 a .13—North Carolina, .10 a .11, very dull the week past—Georgia, .9 a .10½—WHISKEY, in hhds. 1st proof, 21 a .21½—bbls. 22½ a 23—WOOL, common, unwashed, .15 a .16—washed, .18 a .20—¾ quarter, .25 a .30—full do. .30 a .35—HEMP, Russia, ton, $220—Country, dew-rotted, ton, 136 a 140—water-rotted, 170 a 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 2.87½ a 3.00; No. 2, 2.25 a 2.50—Mackerel, No. 1, 6 50; No. 2, 6.00; No. 3, 5.00—BACON, hams, Balt. cured, .10; do Eastern Shore, 12½—hog round, cured, 8 a .9—Feathers, .26 a .29—Plaster Paris, cargo price per ton, $3.25; ground, 1 25 bbl.

Sales of corn yesterday at 37½ cts.—quality good—in demand.

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AGRICULTURE.

(From the Massachusetts Agricultural Repository and Journal.)

RAW POTATOES BAD FOR MILCH COWS.

The following article taken from a foreign Magazine, has been copied lately into the American Farmer and the New England Farmer.

"Many farmers are in the habit of giving raw potatoes to all kinds of stock; but they are of a watery and griping nature, and accidents have frequently happened from their use before the cattle have been accustomed to them. For milch cows they are very bad, purging them, and rendering their milk too thin and poor, even for suckling. If given raw to fatten oxen, good hay and bean meal should be allowed to counteract the watery quality of the roots. There is, however, much difference in the nature of potatoes, and the mealy approach nearest to the nature of corn, the yellow afford the strongest nutriment."—*Scotch Magazine.*

Nothing can be of greater importance to every farmer, than a correct knowledge of the comparative merits of the different varieties of food for his cattle. Of course nothing can be more pernicious, than throwing out loose and general censures of any particular food, particularly of those most easily raised, and therefore the cheapest. I certainlly am not disposed to set up my authority against opinions advanced in established works. But there is no treason in stating facts, in relating careful and long continued experiments. For nearly twenty years, I have been in the practice of allowing my milch cows from November till they go to grass, about three pecks of roots a day, with good English or upland hay to their full content. I first commence with the beet, because it is most perishable; carrots then follow, and from February till May they have raw potatoes. In commencing with the potatoes, they will be for a few days relaxed; so they will, often, to as great a degree, with Indian meal; after a little use, they return to their natural state of body, and are always in high condition when they are turned out to grass; perhaps they are too fat.

Potatoes, then, cannot be a watery griping food: my milk is as rich as the milk of cows not thus managed. My cows have been almost always raised by myself, from my own stock, and I usually keep them till they are aged. If the proposition stated in the extract at the head of these remarks had been true, or nearly true, or had any degree of soundness in it, it seems to me impossible, that I should never have remarked the ill effects stated.

Some farmers may consider these remarks as of less weight, as coming from a man not bred a farmer. Some may suppose that I trust the eyes of others, and am deceived. To these possible objections, I reply, that my cows are objects of special regard, as furnishing me with one of the most valuable luxuries; that I attend to them personally and carefully; and I can see no good reason why an attention of twenty years should not enable me to form as correct an opinion as a thorough bred farmer. I am not, however, without support from persons of that description. An intelligent practical farmer, whose dairy is in such repute that he obtains from 31 to 37 cents a pound for his butter, assured me, that he always gave his cows in winter the long red potatoes in a raw state, and that he estimated two bushels of that potato for his cows, as equal to one bushel of corn.

JOHN LOWELL.

DOUGLAS' THRESHING MACHINE.

Dear Sir, Green Mont, Kingston, *July* 10, 1828.

In your valuable journal of the 20th ult. mention is made of Douglas' Threshing Machine. May I (without encroaching so much on your kindness,) be permitted to request you to make the following inquiries.

What is the opinion of those who have seen it in operation, as to efficiency, durability, simplicity and the like? What force is required to work it, both as to men and horses? and at what price can one or more be obtained in Baltimore complete, during the ensuing winter or spring? Can they be readily moved from one farm to another?

Most respectfully, your obed't serv't,

J. S. Skinner, Esq. JOHN LUMPKIN.

FAMILY SPINNER.

Northampton Co., N. C., July 7, 1828.

J. S. Skinner, Esq.

Sir,—In your paper of the 27th ult. No. 15, vol. 10, I find a letter from a Mr. Wm. R McCall, on the subject of a cotton spinning machine of his invention. Mr. McCall does not state in his letter what part of Virginia he resides in; though from the certificates of the gentlemen in Vincennes, I presume he resides in the north west part of the state. Being desirous of knowing something more about his "Family Spinner," and Cotton Carding Machine, I have to request that you will endeavour to ascertain his place of his residence.

If his machine will perform the work, of which he and the certificates speak, I have no doubt but that they will prove a valuable acquisition to us *Southrons*, and will, no doubt, meet with due encouragement with us generally; as we begin to feel, too sensibly, the necessity of becoming our own manufacturers. Having no establishments of the kind amongst us, we must begin to manufacture on a small scale at first. This will lead, perhaps, to something of the kind on a large scale, as a kind of countervailing policy, in return for the tariff—which, odious and oppressive as it is to us, will not drive us to rebellion, but will *drive* us to a knowledge of our own resources; which are amply sufficient, if properly directed, to secure us against the evil effects of that one-eyed monster.

Next in importance to the "Family Spinner," in a domestic point of usefulness, is a cheap labour-saving hand loom. And it is much desired that some of your numerous correspondents will enter on the subject, and give some information as to the probable cost of, and the place where such an one can be procured.

Respectfully, your most obed't, W. B. L.

(From the N. England Farmer.)

AGRICULTURAL SOCIETY.

One Hundred Dollars Premium for the best Butter.

A number amongst the most respectable citizens of Boston and its vicinity, having subscribed and paid over to the *Treasurer of the Massachusetts Society for Promoting Agriculture*, a sum of $100 to encourage improvement in the quality of butter offered for sale in the Boston market, the Trustees of the Society, in compliance with the request of the contributors, will award this liberal premium of one hundred dollars, to the person who shall exhibit the best butter, not less than three hundred pounds weight, at the Society's Hall, in Brighton, on Tuesday, the 14th day of October next, (the day previous to the cattle show.) The competition will not be confined to persons within this commonwealth, but will be open to the citizens of all the New England states.

To entitle any parcel to the premium, it must have been manufactured between the first day of June, inst., and the fifteenth day of September, of which fact, a written declaration, under oath, will be required. The preference will be given to that parcel which has been longest made, provided it is of a quality not inferior to any other. The judgment of the Committee in making their award will be influenced by any appearance of particular attention to cleanliness and nicety in the manner of putting up the butter.

As a further encouragement to competitors, an opportunity will be afforded on Wednesday, the day of the cattle show, to sell their butter at public auction at Brighton, without expense of auctioneer's fee; when the most liberal price may be expected for good butter; it being a subject of general complaint that prime butter, except in small quantities, is rarely in Boston market, while it is well known that in other cities, and particularly Philadelphia, the market is daily and abundantly supplied with butter of the finest flavour, put up in the nicest manner.

The State premiums for the same article will be awarded, as usual, at the same time.

Application to enter for the premium of $100, must be made to Jonathan Winship, Esq., residing at Brighton, on or before Monday, the 13th of October.

RICHARD SULLIVAN, } *Committee*
GORHAM PARSONS, } *of the*
E. H. DERBY. } *Trustees.*

June, 1828.

(From the N. Eng. Farmers and Mechanics' Journal.)

WHEEL CARRIAGES.

Gentlemen,—I have read with considerable interest the papers of E. Vialls and other correspondents, on the subject of the line of draught most proper for wheel carriages. I remember to have heard the same subject extremely well treated by the late Mr. Walker, in the course of lectures which he used to deliver in different parts of England, on Experimental Philosophy; and if a few extracts from my notes of the same, can be of any service towards the elucidation of the matter, they are very much at the service of your readers.

Bristol, Eng. E. KNOX.

A horse, considered as a machine, is admirably constructed for draught or sustaining weight. His limbs form an assemblage of levers, which it would require a volume to point out. Attend, however, particularly to the formation of his shoulders: at the place where the neck rises from the chest of the horse, the shoulder-blades form the resting-place of his collar or harness into a slope or inclination, and as this slope or inclination forms an angle with a perpendicular to the horizon of about fourteen or fifteen degrees, it is clear the line of his draught should form the same angle with the horizon—Why? Because the horse will then pull perpendicularly to the shape of his shoulder, and all parts of the shoulder will be equally pressed by the collar.

The horse, besides, considered mechanically as a lever, has in this inclined draught a manifest advantage over all obstacles opposed to it in comparison with an horizontal draught; its power is in fact doubled.

We are entitled, therefore, to conclude, that single-horse carts are preferable to teams, and that four single-horse carts will draw more than when yoked to one cart. The reason—Because, in the latter case, three of the horses must draw horizontally, and therefore in a manner inconsistent with their mechanism.

Truth of this proved by practice. The small horses of the north of England draw larger weights than the largest wagon horses of London, and go longer stages. The small horses of Ireland will draw, as a common load, 15 cwt., while our best wagon horses do not draw, on an average, more than 10 or 12 cwt.

In the case of our eight-horse wagon, at least six out of the eight horses draw inconsistently with their mechanism, so that much exertion is misapplied; the horse's collar is also drawn against his throat, and his breathing interrupted.

In cart teams, where the horses are not marshalled, as in wagons, one horse is standing still while another is wasting his strength in pulling him forward. One horse leans one way out of the line of draught, whilst another is leaning a contrary way; their strength, in short, is scarcely ever united.

A horse, moreover, has the *momentum* of his draught increased by having a portion of the weight on his back. Hence, low wheels are not so disadvantageous as is generally supposed; for low wheels oblige the line draught to incline agreeably to the natural draught of the horse.

To prove that a horse should have something to lift in his draught, to give that draught its utmost momentum, Mr. W. mentioned that he had made the following experiments:

He constructed the model of a four-wheeled carriage, whose weight was eighty-two ounces, the fore wheels 8¼ inches, and the hind wheels 10½ inches. This was drawn on a horizontal board by a line over a pulley; an obstacle 1½ inches high was placed before the fore-wheel, and the splinter-bar raised on the futchels, so as to be even with the top of the fore wheel. The line of draught was then *horirizontal.*

When things were so disposed, the weight necessary to draw the fore wheels over the obstacle was 42 ounces.

On lowering the splinter-bar, so as to make the line of draught to be from three-fourths the height or diameter of the wheel, the weight required was only 30 ounces.

By lowering the splinter-bar still farther, so as to make the line of draught *from the axle*, the weight required was reduced to 24 ounces.

On changing the point of draught to a splinter-bar one inch below the axle of the fore wheel, the weight was only 22½ ounces.

It was hence to be seen, that the disadvantages of drawing from above the centre, are as the sines of the respective arcs passing through the splinter-bar; and the advantage of drawing from below the centre, also as the sines of the respective arcs.

Now, as the splinter-bar, or point of draught, in most of our carriages, is placed about one-fourth the diameter of the fore wheel above its centre, it is evident that a fortuitous pressure, equal to one-fifth of whatever weight lies upon it, is actually added to the natural weight by this unnatural situation of the point of draught.

Another course of experiments was made by Mr. Walker, before several gentlemen well versed in mechanics, on a wagon-like model, weighing about 156 lbs.; the fore wheels 4 feet 2 inches in diameter, and the hind wheels 5 feet 6 inches, with an obstruction placed against the two fore wheels of 6¼ inches.

When the line of draught was perfectly horizontal, or even with the top of the fore wheels, it required to draw it over the obstruction a weight of 60 lbs.

When the direction of the line of draught made an angle with the horizon of seven degrees, by lowering the point of draught six inches below the top of the wheel, the weight required was 48 lbs.

When the end of the line of draught was lowered, till the direction of it was at an angle of eleven degrees with the horizon, it got over the obstruction with 41 lbs.

When the end was lowered to the centre of the wheel, and the line of draught was at an angle of fifteen degrees with the horizon, the obstacle was surmounted with 33¼ lbs.

When the end of the line of draught was lowered to 6¼ inches below the centre or axle, so that the angle with the horizon was seventeen degrees, it was drawn over with 30¼ lbs.

When it was lowered to one foot and half an inch below the centre of the wheel, so that the angle was eighteen degrees, it was drawn over with 29 pounds.

When it was lowered to 18¼ inches below the centre, (being only 6¼ inches above the road, and exactly level with the height of the obstruction,) the angle twenty-three degrees, the weight necessary to draw it over the obstruction was 27 lbs.

These experiments, though made upon so much larger a scale than the former, produced exactly a similar result.

A third experiment with a common chaise, when drawn by a splinter-bar as high as the top of the fore wheels, proved that it required 80 lbs. to put it in motion; when drawn from the axle, it required only 51 lbs.

With another chaise, and the splinter-bar three-fourths of the height of the wheel, the draught over an inch obstruction, required 100 lbs.; but when drawn from the axle, only 61 lbs.

With another chaise, and the splinter-bar three-fourths of the height of the fore wheel, the draught over an inch obstacle required 119 lbs.; but when drawn from the axle, only 93 lbs. So that in both cases there was one-fourth in favour of the draught from the axle.

With the same chaise, drawn up a hill rising one foot in six, with the splinter-bar one-fourth of the wheel's diameter from the top, it required 168 lbs. to draw it up. But when drawn up the same hill from the axle, it only required 129 lbs.; there was, therefore, the same advantage nearly in this mode of draught up-hill as on level ground.

[*London Mech, Mag.*

HORTICULTURE.

ON THE CULTURE AND MANUFACTURE OF SILK.

Extracts from the Manual on the Culture and Manufacture of Silk, *prepared and communicated for the American Farmer, with remarks and notes, by a correspondent and practical cultivator.*

(Continued from p. 116.)

Baking Cocoons.

In five or six days after the cocoons have been detached from the branches, or frames, carefully pick out all the spotted cocoons, and put the rest in long flat baskets, filling them within an inch of the top; cover them with paper, and a wrapper over it; put these baskets in an oven, the heat of which must be as near as possible to that of one from which the bread is just drawn, after being baked.—After the cocoons have remained an hour therein, draw them out, and, to ascertain if the worms be dead, take out from the middle of the baskets a dupion, and open it; if the worm be dead, it may be concluded all the rest are so, because the contexture of the dupion being stronger than that of the other cocoons, it is consequently less easily penetrated by the heat; it ought to be taken from the middle of the basket, because, in that part, the heat is the least perceptible. After the baskets have been drawn out of the oven, cover them with a thick woollen rug, leaving the wrapper as it was; and pile the baskets on one another. If the baking has succeeded, the woollen cloth will be covered with large drops of water, the thickness of the little finger. The baskets may stand covered thus, for five or six hours, in order to keep in the heat, which stifles those worms which have resisted the heat of the oven.*

Mode of reeling Silk.

The reeling must be performed in dry weather, and when the air is perfectly calm. If done in a building or shed, it should be open on one side, to enjoy sun and air, and walled on the other, to screen off the wind, which would blow about the fibres and threads.

The softest water must be chosen for soaking the cocoons. The proper temperature for it cannot be ascertained until the reeling is commenced, owing to the different composition of the silk. Some cocoons will require water heated from 168° to 190°; others from 190° to 202°. Some point between these extremes may be chosen to which the water should be heated in a first experiment. One thing is certain, that in the U. States it must never reach the boiling point, or 212°

The good cocoons, the white and yellow, are the easiest to wind. The sattiny and the cocalons require water less heated than the others. If hot water be used for the last, they furze out in winding.—The dupions, choquettes, the steamed cocoons, and those which have been kept a long time after being baked, require the hottest water. The dupions require to be soaked five or six minutes before they can be reeled. The cocoons in which the chrysalides have not been killed, by either steaming or baking, give out their silk very easily, and in water less heated than the last mentioned sorts. The temperature of the water most proper for each particular species of cocoon being ascertained by the thermometer, it must be kept to that degree by dipping the instrument in it frequently; and the fire under the basin must be lessened or increased, as occasion may require. A little attention will soon enable the person who has the management of the basin, to preserve the water at the proper degree of heat.

The reeling is effected by the use of the apparatus represented by the accompanying cut. The person charged with the management of the cocoons in the basin, must be provided with a small whisk of broomcorn, or of birch twigs cut sharp at the points, and, being seated behind the basin previously filled with soft hot water, and the basin placed upon a furnace containing burning charcoal, she must throw into the water a handful or two of cocoons of one sort and degree of firmness, and press them gently under the water for two or three minutes, in order to soften the gum of the silk, and thereby to loosen the ends of the filaments. She is then to stir the cocoons with the end of the whisk, as lightly as possible, until one of the fibres, or filaments, adheres to it, when, disengaging it, and laying aside the whisk, she is to draw the filament towards her, until it come off quite clean from floss, or coarse silk, which always surrounds the cocoon, and the fine silk begins to appear: then, breaking off the thread, and collecting the floss first taken off, she must put it aside. The whisk is then to be applied again, to get hold of the fine fibres, all of which must be set apart, each fibre by itself, by fixing it to a piece of wood kept near to the furnace for that purpose, or to a frame of wood placed all around, and on the edge of the copper, till the whole, or the greatest part, are arranged in this manner, which are thus in readiness to be thrown in, to form the thread of silk to be wound off. This done, she is to unite a number of the fibres, according to the fineness of the intended thread, and delivers the compound thread to the reeler, who puts it through one of the holes in the iron plate, placed horizontally above the basin containing the cocoons and water. Another thread is in like manner, to be prepared, and passed through the adjoining hole—This process is repeated with the two other holes at the other end of the plate; the two threads are then crossed twenty or twenty-five times, and the ends of each thread passed through the guide-hooks, (rampins M M, of the traversing bar I, and on the contrary side to the hole in the iron plate through which it had previously been passed. They are then to be carried forward, and made fast to one of the arms of the reel N. The points of attachment of the two threads will be regulated by the distance between the rampins. Both threads being fastened to the reel, it is to be turned with a regular, even motion, at first slowly, until the threads are found to run freely and easily: for it will happen that some of the ends, which were taken to compose the thread were false, because, in taking off the floss, there may be two or three breaches made in the beginning of the fibres, which, in winding, will soon end, and must be added anew to make up the number designed for the thread. It might, therefore, be proper in the beginning of the thread, to put a few more cocoons than it is intended to continue, which will soon be reduced to the proper number.

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* It is believed that the necessity for baking of cocoons may be altogether obviated by placing them in a cellar, which, if it be very cold, will prevent the moths from hatching. This will be of very great advantage, as the silk is easier reeled, and believed to be of a better quality than when the cocoons are either baked or steamed.

* For fine silk, four fibres, from four cocoons, are to be passed through each of two holes in the iron plate, most distant from each other. Two skeins of silk, from good cocoons, are always reeled at the same time, whether the silk be fine or coarse.

The crossing of the threads is so essential to their perfection, that it must not, on any account, be omitted. It is necessary to promote the dissipation of the moisture imbibed by the fibres, and thus prevents the injurious glueing of the threads upon the reel. The friction of the threads also removes the knots, inequalities, and roughness on them, and causes a perfect adhesion of their fibres, and hence, insures their strength, their uniform thickness, and cylindrical form, which otherwise would be flat. The cut will give a perfect idea of this first step in the preparation of silk. It represents two threads formed from 16 cocoons.

As soon as the pods begin to give the thread freely, the reel is turned with a quicker motion. If the pods leap up often, and beat against the iron plate P, the motion of the reel must be slackened; and if the threads come off in burrs, it must be turned quicker. Of this the spinner, who has her eye upon the balls and thread, must, as she sees occasion, apprise the reeler, and, at the same time, the fire must be increased or diminished, that the reel may be allowed a proper motion, which ought to be as quick as possible, without endangering the breaking of the thread, or hurrying the spinner, so that she cannot add fresh cocoons as fast as the old ones are ended.

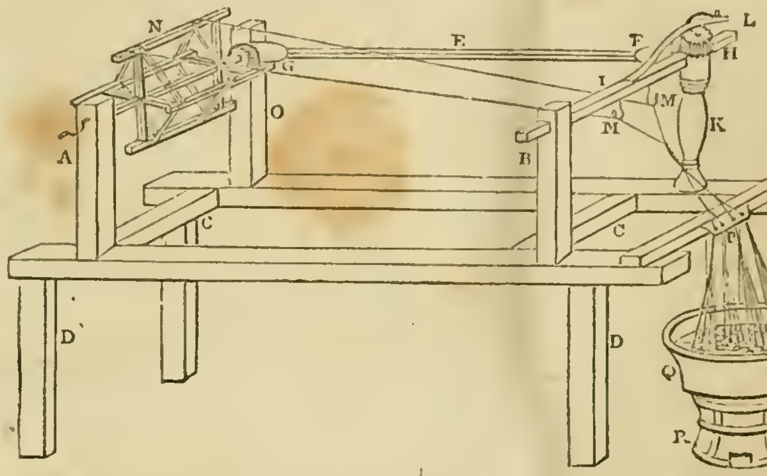
The quicker the motion of the wheel is, the better the silk winds off, and the better the end joins to the thread. One might imagine that the rapidity of the motion would overstrain and break the thread; but, from constant experience, it has been found that the thread never once breaks from the rapidity of the motion, but, on the contrary, that the quicker the motion is, the more advantageous it is for winding the silk.

While the reel is turning, the spinner must continually add fresh fibres to each thread as fast as she can find the ends, not waiting till some of the number she began with, are ended, because the internal fibres are much thinner than those constituting the external layers; but must constantly prepare fresh ends, by dipping the wisk among fresh cocoons, of which such a quantity must be occasionally thrown into the basin, as will suffice to supply the two threads which are reeling, but not more; because, by being too long soaked in the hot water, they would wind off in burrs. The supplying fresh ends, when the cocoons are exhausted or diminish, or the fibres break, is performed by taking one end of a fibre, and throwing it lightly on the one that is winding, and rolling them between the thumb and the finger, or gently pressing them.

As often, therefore, as the cocoons are partially wound, are exhausted, or the fibre breaks, fresh ones must be joined, to keep up the number requisite, or the proportion; thus three new ones may be wound, and two half wound, or four new ones, and the silk will then be from four to five cocoons. The adroitness in adding fresh threads can only be acquired by practice. The difficulty of keeping the thread even is so great, owing to the increased fineness of the fibre inside, that, (excepting a thread of two cocoons,) we do not say a silk of three, of four, or of six cocoons; but a silk of three and four, of four and five, and of six to seven. In coarser silk, we do not calculate so nicely, as one cocoon more or less; we say, for example, from twelve to fifteen, from fifteen to twenty cocoons. In beginning a thread of ten cocoons, from sixteen to twenty will sometimes be required to preserve an uniform thread, after a portion of the first layer has been wound off.

The cocoons are not entirely wound off, so as to leave the crysalis bare; because the last fourth part of the fibre is very small and knotty. Three fourths of the cocoon only should be wound off, for fine silk, and the remainder may be used for inferior silk. The cocoons partly wound off must be taken from the basin, as they thicken and injure the water. It will be seen that the threads do not lie parallel, but cross each other on the rails of the reel. This is necessary to prevent their adhering by means of the gum. The crossing is effected by the motion of the traversing bar, which is produced by the different number of teeth in the pinion of the axle, and in the wheels at the ends of the shaft E, and in the pinions on the top of the post K, which catch and work upon one another.

When a desired quantity of silk has been wound on the reel, pick off all the loose silk; then take a little handful of the coarse silk, and after washing and squeezing it, dip it in cold water, and rub over the silk on the reel, stroking up also the silk with the palm of the hand; then turn the wheel with all possible velocity, with open windows, if the reeling has been done in a room, for about eight or ten minutes, to dry the silk effectually; which done, take off the reel, put it in a dry, airy place, but not in the sun. This is done to clean the silk and give it a gloss. When one reel is taken off, another should be put on, that the work may not be delayed. Every winding apparatus must have two reels.



Explanation of the Cut.

Silk Reel of Piedmont. The frame is 6 feet 5 inches long, 4½ by 3 inches thick. Distance of the upright posts A B, 4 feet 4½ inches.

C C. Length of the braces of the frame, 20 inches in the clear.

D D. Legs of the frame, 2 feet 3½ inches long.—E, Shaft with a crown wheel at each end. The wheel F, 9 inches and 1-10 in circumference, has 22 teeth. The wheel G, 10 inches and 2 1-10 in circumference, has 25 teeth. This shaft has an iron pin at each end, 1 inch long. The pin at the end G, plays in a hole in a shoulder near the top of the post O, so as to enable the teeth of the wheel to catch and work in those of the pinion at the end of the axle of the reel, which axle, by means of a pin at the end, also plays in a hole in the post O. The pin at the other end of the shaft, plays in a hole of the post K, and the teeth of the wheel F work in the pinion H, fixed on the top of the post K, by means of a burr screwed on the pin projecting from the post, and passing through the centre of the pinion. This pinion has 35 feet. On the top of the pinion H, is a crank, having a sweep of four inches, and receives, on its top, the end of the iron wire-carrier of the traversing bar I. The crank is fixed half an inch from the commencement of the groves of the pinion. I. A traversing bar, 2 feet 10 inches long, 5-8 of an inch wide, ¾ of an inch thick, playing through the posts B K: height of the post, from the frame, 17 inches.

L. An iron carrier of wire 18 inches long, fixed to the bar I, to work free by a screw. The other end is fixed by a burr, to the pin passing through the centre of the pinion H.

M M. Two wire hooks or eyes, (rampins,) 7 inches and ¾ apart, at equal distances from the ends of the traversing bar, through which they pass. The wires to the commencement of the turns of the hooks, are 5 inches in length.

N. The reel; arms, 2 feet 2 inches and 1 10 long in the clear; 1½ inches wide, and 8-10 of an inch thick: rails 20 inches ¾ long, 2 inches broad, 8-10 of an inch thick: two of the arms are jointed, to allow the skeins of silk to be taken off, when reeled and quite dry.—There ought to be an extra reel to put in the place of the one taken off, to prevent the work stopping.

O. Upright support for the axle of the reel on the ends of which the pinion is fixed, to work with the wheel G, at the end of the shaft E. The pinion of the axle has 22 teeth. P. An iron plate with four holes, 12 inches long, slightly hollowed, projecting 3½ inches from the bar: the outside holes are 3 inches from the ends; from the centre of one hole, to that of the next, ¾ of an inch. Distance from the two inside and nearest holes, 4 inches and 2-10.

Q. The copper basin to contain hot water, in which the cocoons are immersed, when reeling off. It is 18 inches long, 1 foot broad, and 4½ inches deep.

R. The furnace to contain charcoal, to keep the water hot.

Distance from the centre of the posts A B, and O K, 36 inches and a half. Circumference of the reel 6 feet 11 inches.

Distance from the top of one arm, where it enters the rail, to another arm 18½ inches.

From the axle of the reel and the traversing bar , four feet eight inches.

The writer of the Manual recommends Mr. D. Tees, No. 150, North Front street, and B. F. Pomeroy, corner of Walnut and Dock streets, Philadelphia, to those who wish to have silk reels made.

PRESERVATION OF PEACH TREES.

Mr. Skinner, *Dayton, Ohio, June* 24, 1828.

In yours of June 6th, I observe one or two short paragraphs upon the subject of the preservation of peach trees. If you esteem this luscious, and during its season incomparable fruit, as I do, you will not hesitate in rendering every aid towards its successful cultivation.

In addition to my orchard, I have about one hundred peach trees of different kinds, (and some one or two which are natives of our village, and of but few years, are equal to any,) not one of which is at all injured by the worm, while many of my neighbours' are entirely destroyed. I can assure every one, that from my experience, no difficulty exists, and the produce amply remunerates for every trouble. One of your correspondents recommends lamp or fish oil, and then boiling water. Both are right, although I should say that boiling water was a very doubtful remedy, and would require to be often repeated. Not long since I saw a very fine peach tree in a perfect state of preservation. Although it had been several years bearing, (it was in a small garden, the reason of there being no more,) yet the worm had not injured it. Always anxious to learn every thing connected with agriculture, I inquired particularly with regard to its treatment, and was informed that the lady of the family had directed the suds of soap after washing, without regard to their being cold or boiling, to be thrown about the tree—and it had the desired effect.

The season is approaching when the insect commences its depredations, The season of its depredations may be fixed as commencing early in July, and ending in September. Its greatest ravages are during the month of August. It penetrates the surface, end commences its depredation by boring the tree and depositing its egg about one to three inches below the surface. I have read in works upon the subject, that the bark is there more tender, which I presume is an error, and that all bark of the root is equally soft, and that it is only the natural instinct which causes the insect to commence at that place. The egg, thus lodged in the wood of the tree, is there hatched and becomes a worm, which feeds upon the tender wood and bark, and effectually destroys the tree.

My method of prevention is this. Early in the month of July, with a hoe I clean away the earth from about my trees, in size and in shape like a common wash bowl. The excavation being about three inches deep next the tree, and six or eight in diameter. I then fill up the hollow with common wood ashes, and raise an embankment about the tree, also about the size of a common wash basin inverted; and have never yet known the insect to penetrate this embankment of ashes to the injury of my trees. I have never discovered any injury to result from the caustic nature of the ashes, and always take the precaution in the fall, say October, to remove the ashes and mix them with the surrounding earth, drawing up fresh earth to the tree to supply the place of the ashes. It any of your correspondents to whom this process is unknown, should be induced to try this experiment and should succeed, if they are as fond of a basket of fine Oldmixtons as I am, they will be obliged to me; if unsuccessful, I shall not have given them much trouble.

I have heard and read of various remedies for preventing the injury spoken of, but do not believe that any of them will prove efficacious, except the application of some substance to the tree just below the surface, which will prevent the approach of the fly or insect. I have often thought that lime in its powdered state, would be more efficacious than ashes; but as the ashes have never failed me I have never tried the experiment. I have known it recommended to remove the earth from the tree, so that the frosts might have full effect. This, however, will do no good, as the injury, or rather the seeds of it, are lodged in it before the frost commences, and are not injured or destroyed by it. I have known the earth removed, and tobacco, stems and other offal from the tobacconists applied with success. Ashes, however, are less trouble and more certain. In the summer I give my trees a thick coat of wash—a mixture of cow dung, urine, soap suds, ashes and lime. I do not know that it is of service in preventing the injury I speak of, but have often thought it did, preventing by its disagreeable nature the approach of the fly to any part of the tree. It is of essential service to the general health of the tree by destroying worms and insects, which are prevented from depositing their eggs in the bark. If you think the above worthy a place in your columns, it is at your service. H. B.

PLUMS.

Mr. Skinner, *Dayton, Ohio, June* 24, 1828.

Our plums in this country are so entirely destroyed, year after year, that we have at last become indifferent about preserving our trees; and in case any of your correspondents are able to make known any efficient remedy, he cannot perform a more charitable and beneficent act. I have often seen my trees, to the number of twenty or thirty, loaded with fruit, promising a most abundant supply, and which were almost entirely destroyed.—Just as our plums have their growth, they are perforated by the insect—the *circulio*, who is a sly depredator, and hardly ever seen, and almost immediately begin to fall off. I believe the finer stone more liable to injury than others, as the deposite is more easily and effectually made—but ours are entirely destroyed.

I have heard and read of many preventives, but none has ever succeeded with me. Some have recommended to hang up slips of paper on shingles, covered with a solution of some drug, such as camphor, or corrosive sublimate; but I have never found any effectual. The only remedy I ever found of any service, had but a partial effect. As it was of some service, I will communicate it. I dug a hole in the ground, away from the trees, three or four feet deep, and at stated times every day, had the plums as they fell carefully picked up and buried in the hole. If all would do this, I believe they would become scarce. This year I carefully removed the earth from about the trees, according to directions I somewhere read, and supplied its place with other earth from a distance. I am fearful, however, the insect will find me out. H. B.

Copy of a letter from the celebrated Dr. Saml. L. Mitchill, to William Prince, Esq. proprietor of the Linnæan Botanic Garden, near New York:—

William Prince, Esq. *New York, June* 18, 1828.

I offer you thanks, my dear sir, for the copy I very lately received of your "*Short Treatise on Horticulture. &c*"* It came in very seasonably, after the perusal of Mr. Wilson's publication, and of Major Adlum's tract on the vine to which I may add Dr Mease's book on silk, compiled at the request of the Secretary of the Treasury. I have gone through it once with pleasure and instruction, and I intend to examine it again. You have united so much science with practice, or in other words, associated so much botany with gardening, that I shall keep it near me as a work for steady reference. I consider your description of fruit trees and shrubs, grapes and strawberry, bulbous roots, green house plants and others, highly interesting. I am interrupted by visiters, and have therefore only time to offer one of my late feeble efforts in return. So farewell. SAMUEL L. MITCHILL

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* For sale by G. F. Miller, office of American Farmer.

TO HORTICULTURISTS.

Mr. Skinner,

There is a negligence amongst some who are profiting by the sale of fruit trees which should be corrected. It is extremely vexatious for a man to purchase a fruit tree, have it taken a thousand miles, nurse it a dozen years, and instead of realizing his expectations, to find fruit of a most inferior quality. This has happened with a gentleman in Frankfort, Ky. in relation to the Seckle pear; and he has circulated around him the grafts, so that the injury is extensive. I hope you will put in your paper a short paragraph, that you will, upon request of any gentleman who may *hereafter* be thus imposed on, give publicity of the kind of deception, and by whom practiced, provided the deception was made by a vender of trees.* This will correct a carelessness which must be its cause, for I cannot believe there is any man so lost to what is due to himself and to his fellow man as to thus deceive him for the paltry sum of the price of a small tree; the injury to the one, and to society, is incalculably greater than the benefit to the other.

I wish some one who has the Imperial or Oakleaf pear would inclose you a leaf of it, which I hope you will transmit to me.

A friend to Horticulture.

[* We shall have no hesitation in doing it if the person making the complaint will leave his name with the Editor]

(From the Southern Agriculturist.)

THE PROCESS FOR MAKING CASTOR OIL.

Dear Sir: In compliance with your request, I send you the process for making Castor Oil; and hope that it may prove useful to the gentleman who requested the information.

After collecting the bunches of seeds, expose them to the sun until perfectly dry—then lay them on a scaffold, and beat them with a very small flail, which will separate the hull from the seed; then pound them in a wooden mortar till the shell of every seed is broken. Have a vessel of water at boiling heat, which you will then put the seed into from ten to twenty minutes. A dirty scum will rise which must be taken off; the clear oil will then rise, which must be put into a second vessel without water, to be acted on by a slow fire, not to arrive at boiling heat; as soon as it appears clear and transparent, taking off the scum that may appear, (which will make an inferior quality of oil;) it is ready for bottling as soon as cold exclude it from the air. The kind of Palma Christic said to be the best for making oil, is of the species where the stalk is pink.

P. S. The quantity of water in the first vessel must be as three to one to the quantity of the best seed, and stir frequently to prevent its adhering to the bottom of the vessel, which would give it a burned taste. Be careful that it does not boil over, as it will take fire. I remain your's, &c. S.—

The extensive Horticultural and Flower Garden of Mr. Parmentier, a short distance beyond the turnpike gate, on the road leading to Jamaica, is now clothed in all its beauty. The foliage of the choice fruit trees and shrubbery which border and adorn this spacious garden, is now most perfect, and the great variety of splendid flowers, tastefully arranged, which present themselves to the eye, when viewed from his *Rustic*, afford a most pleasing and enchanting spectacle. The freshness and fragrance of the air is felt by all whom business or pleasure call that way. *N. Y. E. Post.*

Experience is the father, and memory the mother of wisdom.

INTERNAL IMPROVEMENT.

Chesapeake and Ohio Canal.

[In our last, under this head, we gave the address pronounced by Mr. Morris, in behalf of the Board of Directors of the Baltimore and Ohio Rail-road, at the commencement of that grand work on the 4th inst. We have now the pleasure to lay before our readers the beautiful address of the President of the United States, on the same day, on the occasion of performing for the Chesapeake and Ohio Canal Company, the same duty in regard to that great undertaking which had been done here by the virtuous and venerable Carroll. We regret that we have not room for the other addresses and proceedings on that occasion, for our feelings are as national as the works to which they refer. Without saying any thing about the constitutional question, we have never suffered local influences to bias our opinions or wishes.]

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(From the National Intelligencer.)

FOURTH OF JULY IN WASHINGTON.

Breaking Ground upon the Canal.

On Friday, the 4th of July, which, by concurrent votes of the President and Directors of the Chesapeake and Ohio Canal Company, and the corporations of Washington, Georgetown and Alexandria, had been fixed upon for breaking ground upon the line of the Canal, this interesting ceremony took place in the order prescribed by the Committee of Arrangement, as heretofore published, which was most successfully carried into effect by Gen. Thornton and Col. Stull, marshals of the day, and the aids whom they appointed.

About 8 o'clock, the procession was formed on Bridge-street, and moved on, to the excellent music of the full band of the marine corps, to High street wharf, where they embarked in perfect order, as previously arranged, and the boats immediately set forward amidst the cheers of the crowds which lined the wharves.

On landing from the boats, and reaching the ground (one or two hundred yards east of the line of the present canal,) the procession moved around it so as to leave a hollow space, in the midst of a mass of people, in the centre of which was the spot marked out by Judge Wright, the engineer of the Chesapeake and Ohio Canal Company, for the commencement of the work. A moments pause here occurred, while the spade destined to commence the work was selected by the committee of arrangements, and the spot for breaking ground was precisely denoted.

The President of the United States, to whom Gen Mercer had presented the spade, stepped forward, and, with an animation of manner and countenance which showed that his whole heart was in the thing, thus addressed the assembly of his fellow citizens:

Friends and Fellow Citizens,—It is nearly a full century since Berkely, Bishop of Cloyne, turning towards this fair land which we now inhabit, with the eyes of a prophet, closed a few lines of poetical inspiration with this memorable prediction:

"Time's noblest Empire is the last."

A prediction which, to those of us whose lot has been cast by Divine Providence in these regions, contains not only a precious promise, but a solemn injunction of duty, since upon our energies, and upon those of our posterity, its fulfilment will depend. For, with reference to what principle could it be, that Berkely proclaimed this, the last, to be the noblest Empire of Time. It was, as he himself declares, on the transplantation of *learning and the arts* to America. Of learning and the arts. The four first acts—the empires of the old world, and of former ages—the Assyrian, the Persian, the Grecian, the Roman empires—were empires of conquest; dominions of man over man. The empire which his great mind, piercing into the darkness of futurity, foretold in America, was the empire of learning and the arts—the dominion of man over himself, and over physical nature—acquired by the inspirations of genius and the toils of industry; not watered with the tears of the widow and the orphan, not cemented in the blood of human victims; founded not in discord, but in harmony—of which the only spoils are the imperfections of nature, and the victory achieved is the improvement of the condition of all. Well may this be termed nobler than the empire of conquest, in which man subdues only his fellow man.

To the accomplishment of this prophecy, the first necessary step was the acquisition of the right of self-government by the people of the British North American colonies, achieved by the Declaration of Independence, and its acknowledgment by the British nation. The second was the union of all these colonies under one general confederated government—a task more arduous than that of the preceding separation, but at last effected by the present constitution of the United States.

The third step, more arduous still than either or both the others, was that which we fellow citizens, may now congratulate ourselves, our country, and the world of man, that it is taken. It is the adaptation of the powers, physical, moral and intellectual, of this whole Union, to the improvement of its own condition: of its moral and political condition, by wise and liberal institutions—by the cultivation of the understanding and the heart—by academies, schools, and learned institutes—by the pursuit and patronage of learning and the arts: of its physical condition, by associated labour to improve the bounties, and to supply the deficiencies of nature: to stem the torrent in its course; to level the mountain with the plain; to disarm and fetter the raging surge of the ocean. Undertakings, of which the language I now hold is no exaggerated description, have become happily familiar, not only to the conceptions, but to the enterprise of our countrymen. That, for the commencement of which we are here assembled, is eminent among the number. The project contemplates a conquest over physical nature, such as has never yet been achieved by man. The wonders of the ancient world, the pyramids of Egypt, the colossus of Rhodes, the temple of Ephesus, the mausoleum of Artemisia, the wall of China, sink into insignificance before it—insignificance in the mass and momentum of human labour, required for the execution—insignificance in the comparison of the purposes to be accomplished by the work when executed. It is, therefore, a pleasing contemplation to those sanguine and patriotic spirits who have so long looked with hope to the completion of this undertaking, that it unites the moral power and resources; first, of numerous individuals; secondly, of the corporate cities of Washington, Georgetown, and Alexandria; thirdly, of the great and powerful states of Pennsylvania, Virginia and Maryland; and, lastly, by the subscription authorized at the recent session of Congress, of the whole Union.

Friends and Fellow labourers: We are informed by the Holy Oracles of Truth, that, at the creation of man, male and female, the Lord of the Universe, their maker, blessed them, and said unto them, be fruitful and multiply, and replenish the earth, *and subdue it.* To subdue the earth, was, therefore, one of the first duties assigned to man at his creation; and now, in his fallen condition, it remains among the most excellent of his occupations. To subdue the earth is pre eminently the purpose of the undertaking, to the accomplishment of which the first stroke of the spade is now to be struck. That it is to be struck by this hand, I invite you to witness—[Here the stroke of the spade]*—and in performing this act, I call upon you all to join me in fervent supplication to Him from whom that primitive injunction came, that he would follow with his blessing this joint effort of our great community, to perform his will in the subjugation of the earth for the improvement of the condition of man. That he would make it one of his chosen instruments for the preservation, prosperity, and perpetuity of our union. That he would have in his holy keeping all the workmen by whose labours it is to be completed.—That their lives and their health may be precious in his sight; and that they may live to see the work of their hands contribute to the comforts and enjoyments of millions of their countrymen.

Friends and Brethren: Permit me further to say, that I deem the duty, now performed at the request of the President and Directors of the Chesapeake and Ohio Canal Company, and of the Corporations of the District of Columbia, one of the most fortunate incidents of my life. Though not among the functions of my official station, I esteem it as a priviledge conferred upon me by my fellow citizens of the District. Called, in the performance of service heretofore as one of the representatives of my native Commonwealth in the Senate, and now as a member of the Executive Department of the Government, my abode has been among the inhabitants of this District, longer than at any other spot upon earth. In availing myself of this occasion to return to them my thanks for the numberless acts of kindness that I have experienced at their hands, may I be allowed to assign it as a motive operating upon the heart, and superadded to my official obligations, for taking a deep interest in their welfare and prosperity. Among the prospects of futurity which we may indulge the rational hope of seeing realized by this junction of distant waters, that of the auspicious influence which it will exercise over the fortunes of every portion of the District, is one upon which my mind dwells with unqualified pleasure. It is my earnest prayer that they may not be disappointed.

It was observed that the first step towards the accomplishment of the glorious destinies of our country was the declaration of Independence. That the second was the Union of these States under our Federative Government. The third is irrevocably fixed by the act upon the commencement of which we are now engaged. What time more suitable for this operation could have been selected than the Anniversary of our great National Festival? What place more appropriate from whence to proceed, than that which bears the name of the citizen warrior who led our armies in that eventful contest to the field, and who first presided as the Chief Magistrate of our Union? You know that, of this very undertaking, he was one of the first projectors; and if, in the world of Spirits, the affections our mortal existence still retain their sway, may we not, without presumption, imagine that he looks down with complacency and delight upon the scenes before and around us?

But, while indulging a sentiment of joyous exultation, at the benefits to be derived from this labour of our friends and neighbours, let us not forget that the spirit of internal improvements is catholic and liberal. We hope and believe that its practical advantages will be extended to every individual in our union. In praying for the blessing of Heaven upon our task, we ask it with equal zeal and sincerity upon every other similar work in this confederation; and particularly upon that which, on this same day, and perhaps at this very hour, is commencing from a neighboring city. It is one of the happiest characteristics in the principle of internal improvement, that the success of one great enterprise, instead of counteracting, gives assistance to the execution of another. May they increase and multiply, till in the sublime language of inspiration, every valley shall be exalted, and every mountain and hill shall be made low; the crooked straight; the rough places plain. Thus shall the prediction of the Bishop of Cloyne be converted from phophecy into history, and in the virtues and fortunes of our posterity, the last shall prove the noblest Empire of Time.

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* Attending this action was an incident which produced a greater sensation than any other that occurred during the day. The spade which the President held struck a root, which prevented its penetrating the earth. Not deterred by trifling obstacles from doing what he had deliberately resolved to perform, Mr. Adams tried it again, with no better success. Thus foiled, he threw down the space, hastily stripped off and laid aside his coat, and went seriously *to work.* The multitude around and on the hills and trees, who could not *hear*, because of their distance from the open space, but could *see* and understand, observing this action, raised a loud and unanimous cheering, which continued for some time after Mr. Adams had mastered the difficulty.

As the President concluded, a national salute was fired by the detachment of United States artillery posted upon the ground.

Several addresses were then delivered, at the conclusion of which the spade was taken, and sods of earth dug in succession by the President of the canal company, the Mayors of Washington, Georgetown and Alexandria, the Secretaries of the Treasury, War, and Navy, the Postmaster General, the Commander of the Army, the Revolutionary officers present, the Directors of the canal company, and then by a great number of other persons.

After a few moments repose, the procession again formed, and returned to the boats, and by the way of the canal back to tide water, where they re-embarked on board the steam boats.

A cold collation was then partaken of on board the boats, with a relish sharpened by exercise, and by the gratification, free from the least particle of alloy, which the whole excursion and the incidents of the day had afforded to all.

At the table on the deck of the Surprise, the President of the United States being called upon for a toast, gave the following:

"*The Chesapeake and Ohio Canal.*—Perseverance!"

The President of the Canal Company, on being called upon for a sentiment, gave the following:

"*The Constitution of the United States.*—The offspring of mutual concession, may it be preserved by mutual forbearance!"

The Secretary of the Treasury, being also called on for a toast, gave the following, which only spoke the universal feeling:

"*The Chesapeake and Ohio Canal.*—May its completion be as productive of public benefits, as its commencement has been of social pleasure."

By this time the steam boats had arrived opposite to Georgetown; and, after lying in the stream a few minutes, proceeded down the river, and swept up to Davidson's wharf, in the city, where most of the passengers were landed, at about half past two o'clock, and the company dispersed to their respective homes with the kindest feelings in themselves and to one another.

LADIES' DEPARTMENT.

☞We suppose the understanding to exist that gentlemen are never to pry into the "*Ladies' Department*" of the American Farmer, unless invited to read it, which is, we hear, sometimes done, when it contains hints that are thought to be applicable to certain husbands, in the particular case. As it may be that nothing in this number would lead to such an invitation, we suggest respectfully, that husbands ask leave of their good helpmates, to take a peep at what has been served up for their department *this week*, from an author that every one will readily recognise.

If it be difficult to persuade the idle to be busy, it is likewise, as experience has taught me, not easy to convince the busy that it is better to be idle. When you shall despair of stimulating sluggishness to motion, I hope you will turn your thoughts towards the means of stilling the bustle of pernicious activity.

I am the unfortunate husband of a *buyer of bargains.* My wife has somewhere heard, that a good housewife *never* has any thing to *purchase when it is wanted.* This maxim is often in her mouth, and always in her head. She is not one of those philosophical talkers that speculate without practice, and learn sentences of wisdom only to repeat them; she is always making additions to her stories; she never looks into a broker's shop, but she spies something that may be wanted some time; and it is impossible to make her pass the door of a house where she hears *goods selling by auction.*

Whatever she thinks cheap, she holds it the duty of an economist to buy: in consequence of this maxim, we are encumbered on every side with useless lumber. The servants can scarcely creep to their beds through the chests and boxes that surround them. The carpenter is employed once a week in building closets, fixing cupboards, and fastening shelves; and my house has the appearance of a ship stored for a voyage to the colonies.

I had often observed that advertisements set her on fire; and therefore pretending to emulate her laudable frugality, I forbade the newspaper to be taken any longer: but my precaution is vain; I know not by what fatality, or by what confederacy, every catalogue of *genuine furniture* comes to her hand; every advertisement of a newspaper newly opened is in her pocket book and she knows before any of her neighbours when the stock of any man *leaving off trade* is to be *sold cheap for ready money.*

Such intelligence is to my dear-one the Syren's song. No engagement, no duty, no interest, can withhold her from a sale, from which she always returns congratulating herself upon her dexterity at a bargain; the porter lays down his burden in the hall; she displays her new acquisitions, and spends the rest of the day in contriving where they shall be put.

As she cannot bear to have any thing uncomplete, one purchase necessitates another; she has twenty feather beds more than she can use, and a late sale has supplied her with a proportionable number of Whitney blankets, a large roll of linen for sheets, and five quilts for every bed, which she bought because the seller told her, that if she would clear his hands he would let her have a bargain.

Thus by hourly encroachments my habitation is made narrower and narrower; the dining-room is so crowded with tables, that dinner scarcely can be served; the parlour is decorated with so many piles of china, that I dare not step within the door; at every turn of the stairs I have a clock, and half the windows of the upper floors are darkened, that shelves may be set before them.

This, however, might be borne, if she would gratify her own inclinations without opposing mine. But I who am idle am luxurious, and she condemns me to live upon salt provision. She knows the loss of buying in small quantities; we have, therefore, whole hogs and quarters of oxen. Part of our meat is tainted before it is eaten, and part is thrown away because it is spoiled; but she persists in her system, and will never buy any thing by single pennyworths.

The common vice of those who are still grasping at more, is to neglect that which they already possess; but from this failing, my charmer is free. It is the great care of her life that the pieces of beef should be boiled in the order in which they are bought; that the second bag of pease should not be opened till the first be eaten; that every feather bed shall be lain on in its turn; that the carpets should be taken out of the chests once a month and brushed, and the rolls of linen opened now and then before the fire. She is daily inquiring after the best traps for mice, and keeps the rooms always scented by fumigations to destroy the moths. She employs workmen, from time to time, to adjust six clocks that never go, and clean fine jacks that rust in the garret; and a woman in the next alley lives by scouring the brass and pewter, which are only laid up to tarnish again.

She is always imagining some distant time in which she shall use whatever she accumulates; she has four looking-glasses which she cannot hang up in her house, but which will be handsome in more lofty rooms; and pays rent for the place of a vast copper in some warehouse, because when we live in the country we shall brew our own beer.

Of this life I have long been weary, but know not how to change it; all the married men whom I consult advise me to have patience; but some old bachelors are of opinion, that since she loves sales so well, she should have a sale of her own; and I have, I think, resolved to open her boards, and advertise an auction.

I am sir,
Your very humble servant,
PETER PLENTY.

SPORTING OLIO.

Pedigrees of Thorough bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(*Continued from page* 119.)

71. Oscar, imported, a fine deep sorrel, full 15 hands 3 inches high; was got by Young Snip; his dam by Lord Morton's Arabian; his grandam by Old Crab; his great grandam by the Bald Galloway; his g. g. grandam by Darley's Arabian, out of the dam of Bay Bolton. William Gay.
Cumberland county, Va., March, 1777.

72. Longsdale, was got by Jolly Roger, out of a bay mare, bought of Sir John Ramsden, Baronet; she was got by Monkey; her dam by Lord Longsdale's black Arabian; her grandam by his lordship's bay Arabian—Coneyskins—Dodsworth—Darcey's Royal mare. John Byrd
Charles City, Va., March, 1777.

73. Mercury, a sorrel horse, 5 years old this spring; was got by old Janus, out of Col. Byrd's imported mare Calista. Col. Eppes.
Dinwiddie, Va., March, 1777.

74. Bucephalus, a fine sorrel, full 15 hands 2 inches high; was got by Col. Tayloe's noted horse Yorick; his dam by Careless. Reuben Butler.
King William county, March, 1777.

75. Tristram Shandy, was got by Morton's imported horse Traveller; his dam by old Janus, out of a fine English mare. James Upshaw.
Beverly Plains, Caroline county, Va., March, 1777.

76. Traveller, a fine bay, in high perfection, 16 hands high, rising five years old; was got by Col. Lewis Burwell's horse (who was by old Traveller, out of a Janus mare); his dam (Southall's Traveller) was an imported mare.
James Southall.
Near Williamsburg, Va. March, 1777.

77. America, a chesnut sorrel, full 15 hands high, 5 years old; was got by old Smiling Tom out of a high blooded mare. William Davis.
York Town, March, 1777.

78. Junius, was bred by Mr. Nathaniel Harrison; was got by Col. Tayloe's horse Yorick; his dam by Othello; his grandam by Monkey, out of the old running Spanish mare that was originally imported by Mr. N. Harrison's father. Edward Watts.
Prince Edward, March, 1777.

79. Remus, full 15½ hands high; was got by Dove (who was sold for 1000*l.* sterling); his dam by old Spark, upon a high blooded imported mare.
John Baird.

North Carolina, March, 1777.

80. Laurel, a fine bay, near 15 hands high, 5 years old; was bred by Mr. George Baylor, and got by old Fearnought; his dam was got by the same horse; his grandam was a fine blooded mare.
Michael Yates.

Caroline county, Va., April, 1777.

81 Matchless, a beautiful bay, 15 hands 3 inches high; was got by Fearnought; his dam by Sober John; his grandam by Dabster; his great grandam by old Roan. Thomas Jones.
Orange county, Va., April, 1777.

82. Selim, a fine dark bay, upwards of 15 hands high; was got by Othello (or Black and all Black), whose sire was old Crab; the dam of Selim was the beautiful Selim, got by the Godolphin Arabian, and full sister to old Babram. Henry Anderson.
Amelia county, Va., April, 1777.

83. King Herod, a beautiful bright bay, 15 hands 3 inches high; he was got by the noted horse old Fearnought; his dam by Othello, out of a full blooded imported mare.

N. B. The above horse was lately purchased in the "Jerseys" by Mr. Herbert Haynes.
April 18, 1777.

84. Figure, a fine bay, 15 hands 2 inches high; was got by Dr. Hamilton's imported horse Figure, out of Mr. Brent's noted running mare Ebony.
Peyton Shipwith.
Mecklenburg county, Va., April, 1777.

85. Black and all Black, full 16 hands high, and in great perfection, rising eight years old; he was got by Brunswick, an imported horse, who was by Oronoko, (a son of Crab, out of Miss Slammerkin) Brunswick's dam by Brabram, a son of the Godolphin. The dam of Black and all Black, was got by Ariel (who was got by Morton's Traveller, out of Selima); his grandam was full blooded and sister of Bullyrock. Elihu Hall.
Pennsylvania, April, 1780.

86. Whynot, a beautiful bright bay, full 15 hands high, with a star and snip, black legs, mane and tail; he was got by old Fearnought, a son of Regulus; his sire the Godolphin Arabian; Whynot's dam by Othello; his grandam by Spark; his great grandam was the noted old Field mare.
James Talman.
Gloucester, New Jersey, May, 1780.

87. Ambassador, a fine bay, rising 5 years old, 16 hands high; was got by the noted horse Lofty, imported from Great Britain in the year 1773; his dam by Northumberland, out of a three-quarter blooded mare. Joseph Ogden.
Schuylkill, Pa., May, 1780.

88. Creole, a Jet black full blooded imported horse—no pedigree given. Isaac Serrill.
Kingress, May, 1780.

89. Babraham, was got by Juniper, an imported horse; and he by Babram, a son of the Godolphin Arabian. The dam of Babraham was Col. Tasker's imported mare Selima, by the Godolphin Arabian.
Jacob Hiltzheimer.
Philadelphia, May, 1780.

90. Voltaire, was got by the noted horse Smiling Tom; his dam by Silverlegs, out of the imported mare Moll Brazon. John Thornton.
Northumberland county, Va., March, 1781.

(*To be continued.*)

THE FARMER.

Baltimore, Friday, July 18, 1828.

THE AMERICAN FARMER—*One half for Sale.*

The Editor and Proprietor of the American Farmer, has been unwilling to dispose of any interest in the work, until it should be well established as a national and permanent journal; that object is now secured as well by its local position, as by its extended and increasing circulation through all the states and territories.

In the mean time, the correspondence connected with it has become so burdensome that he is desirous of selling one half of it to a partner, who will himself, or by a trusty agent, keep the books and conduct the business part of the correspondence.

An easy and agreeable occupation, and a profitable investment, may be secured by a gentleman of leisure and small capital, as a *certain* income equal to 25 per cent on the price, may be stipulated for a period to be agreed upon. The Editorship to be retained by the subscriber, who wishes in hours of leisure from official duties, to give it increased attention.

For particulars, inquire of
J. S. SKINNER.

The Editor of the American Farmer has just received from that celebrated statistical writer, Wm. Jacobs, Esq. Comptroller of corn returns, a present of his several works, which are open at the office of the American Farmer, to the inspection of gentlemen disposed to peruse them. These works include, amongst others of profound interest to the agricultural economist:

1. Report of the present year presented to the Lords of the committee of his Majesty's privy council for trade, respecting the agriculture and the trade in corn, in some of the continental states of northern Europe.

Notes to the report.

Appendix to the report.

2. Notices respecting the commerce of the Black sea, and the sea of Azoff, more especially as regards the trade in wheat.

Appendix to notices.

3. Observations on the benefits arising from the cultivation of poor soils, by the application of pauper labour; as exemplified in the colonies for the indigent and orphans in Holland.

With the set of his works, Mr. Jacobs addresses to Mr. Skinner a letter, from which the following is extracted, in the persuasion that it may be perused with pleasure and reciprocal good feelings by American readers.

London, April 28, 1828.

"Although from the nature and extent of the exports of the United States, we are well aware that they are chiefly in the agricultural condition; yet of the details of that agriculture, and of the mechanism of the rural society, we are in a most shameful degree of ignorance, I hope to collect from your work many facts and observations, which may in some degree tend to dispel the darkness respecting the interior economy of America, and enable us to reason with more accuracy on the advancement it has made; than we have hitherto been enabled to do. I hope you will therefore oblige me by sending the subsequent numbers of your paper.

"As a man, I rejoice in every step in prosperity made by America. As an Englishman, I feel proud when I compare the vast dominions whose population has emanated from my own country, and preserved the best of its institutions, manners, and activity, with the settlements formed in the western world by the other European nations. With the few Americans I have come into contact, I have been much delighted; and last year I was particularly so, in having had the pleasure of becoming acquainted with Mr. Wheaton, the minister from the United States to the King of Denmark.

"I have sent you some books which I hope you will find worth your acceptance. I am rather more an advocate for the freedom of commerce than I was some years ago; but the change in my views, slight as they are, have been operated by no metaphysical reasonings, but by the acquisition of more facts, and a more accurate knowledge of previously known facts. I fear however, that my views on that subject extend farther than the general mind, either in Great Britain or in the United States, has yet advanced.

"I expect much gratification from our friend Capt. Basil Hall's collection of facts and remarks on the United States.

"My friend Malthus hopes to get from America some accounts of the ages of the population, a subject to which he is now directing his particular attentinn."

[For the inquiries of Mr. Malthus, see American Farmer, vol. 9, page 330, or vol. 10, page 74.]

Amongst the rich accumulations which Mr. Prince's establishment at Long Island, is constantly receiving from foreign climes, one which will be deemed a great acquisition, is an assortment of *gooseberries*, selected by his friend and correspondent, Mathias Saul, Esq. of Lancaster, England, a gentleman whose numerous communications in the various European publications evince him to be extremely well informed upon horticultural subjects. The collection in question comprises all those which have acquired the most celebrity at the prize shows of the past year in Lancashire, Cheshire, and other parts of England, and may be considered as the *ne plus ultra* of this interesting class of fruit.

Of the *red* kind sent to Mr. Prince, there are twelve—from "Roaring Lions the heaviest of the red Crown Bobs and Sancushell Lads," down to "Royal Georges," weighing from 18 dwts. 23 grs. to 27 dwts. 7 grs.—of the yellow, ten sorts from "Gunner," the heaviest of the yellows, 27 dwt. 14 grs. to Vipers and "Cottage Girls," "Conquering Hero;" and "Delights"—of the *white*, there are seven, embracing *Eagles* the heaviest weighing 24 dwts. 18 grs. and Ladies of the Manor, Wellington's glory, &c. &c.—of the *green*, *Troubler* the heaviest, 21 dwts. 13 grs. with Aaron and Moses, and the Princess Royal and Green Willows, &c.

Mr. Prince has received also, from Professor Bose, administrator of the Royal Garden at Paris, 105 choice varieties, of grapes 30, cherries 15, Pears 30, Apples 21, Plums 19, a list of which may be seen at the office of the American Farmer.

[☞The following queries come from a much respected correspondent, and the Editor, for his own gratification, as well as in behalf of his readers, would be much indebted to any gentleman who would answer them. The practical information is probably to be had in the northern parts of New York, Vermont, &c.]

A Southern Planter, utterly ignorant of the process for manufacturing *Potash,* will be grateful for any information relative to it. He possesses beach wood in abundance, which he is instructed produces a greater quantity of alkali than most forest trees. Not being acquainted with the requisites that would warrant an engagement in the business, however simple they may be when understood, he is induced to solicit the necessary information for the accomplishment of the object in view; and, however apprehensive he may be, that the minute inquiries will require more courtesy than he ought to expect, yet as they may benefit others as well as himself, he will, without further prelimioaries, proceed to state them.

What season ought the wood to be cut?

What length when split, and what size?

Is it most productive burnt green or dry?

Is there any particular form for stacking or piling it?

What is the best manner of collecting and securing the ashes? and what the means employed?

What the number, size and form of the kettles and other necessaries required, for a definite number of labourers—say ten?

If the kettles be set in furnaces, what the proper arrangement for them?

Give the whole process of boiling, setting, &c. The requisite buildings, &c.

Lastly—Can the manufacture of potash from the beach wood be profitably and unremittedly pursued, where there is no want of the materials within a square mile? C. E.

LATEST FROM EUROPE.

London papers to the 29th and Liverpool papers to the 30th of May inclusive, received by the ship Alciope, arrived at Boston from Liverpool.

The British ministry has undergone another change, or we might rather say another dissolution. Ever since the retirement of Lord Liverpool, the cabinet seems to have been composed of discordant and uncongenial elements, which required nothing less than the genius of Mr. Canning to hold them together. Mr. Huskisson has retired, and with him Mr. Lamb, Lord Palmerston, Mr. Grant, and Earl Dudley, have resigned their places. The retirement of Mr. Huskisson was owing to the vote he felt bound to give against Mr. Peel's bill for the disfranchisement of the delinquent borough of East Retford. Mr. Huskisson, was in favor of the transference of the franchise of this borough to Birmingham, in order that the populous commercial town might be entitled to a member of Parliament. On giving his vote he wrote a letter to the Duke of Wellington, stating the reason which had induced him to vote in the minority, and adding that "if his continuance in office should be felt as an embarrassment to the Administration, he was ready to resign." The Duke chose to consider this as a formal resignation, and laid it as such before the King. Afterwards, according to the Morning Chronicle, Mr. Huskisson endeavored to explain to the Duke that he intended to make his resignation depend solely upon the view which his Grace thought proper to take of the propriety of his remaining in the Cabinet. The Colonial Secretary was told in reply, that he had resigned, but that if he would withdraw his letter the subsequent proceedings should be considered as not having taken place. This proposal was declined, and the retirement of Mr. Huskisson was accordingly followed by that of his colleagues, the *liberal* members of the Administration. The withdrawing of a man of Mr Huskisson's talents, acquaintance with business and enlightened views, must be an immense loss to the Cabinet and to the nation. The London Courier, however, declares that it will make no change in the policy of the Cabinet It is rumoured that Mr Huskisson will be succeeded by Sir George Murray, and that Lord Wallace, Mr. T. Lewis, Mr. Calcraft and Lord Aberdeen, will be offered places in the ministry. There were also rumours that Sir Henry Hardinge and Mr. Fiztgerald had been named as successors to Lord Palmerston, as Paymaster of the Army.

COMMERCIAL RECORD.

LONDON, May 28.

Tobacco—The sales of Tobacco are chiefly for the town trade, only 60 or 70 hhds. being taken for shipping, all Virginia and Maryland At a public sale of 97 hhds. Maryland, chiefly yellow, 40 hhds. sold to the trade at 3½ to 3¾*d*

Turpentine—2,200 bbls. were offered yesterday for public sale, and taken in at 11*s*. 9*d*.

Hops—A remarkable change took place in Hops last week; the new advanced 25 to 30*s*. per cwt. Old Hops were 5 to 10*s*. higher. The duty formerly estimated at 130,000*l*. fell to 75,000 and 80,000*l*. yesterday, and today the accounts from the Hop plantations are more favourable, the heavy rains having in a great measure swept off the fly. Previously the accounts had been most alarming, the plantations being covered with vermin.

Cotton is firm—The purchases are not extensive, owing to the India House Declaration, the event of which the buyers are inclined to wait for. Purchases for the week consist of 2000 Surat, 3 5-8 to 5*d*.; 230 Egyptian 7 3-8; 100 Pernams 7 7-8; 160 Boweds 6 to 6 ¾.

LIVERPOOL, May 29.—Ashes, U. S. Pot, 31 a 32*s*.; do. Pearl 30 a 31*s*.; Beeswax 10*l*. 11 a 11; Cotton, bowed, Geo. 6 a 7*d*.; do. N. O 6 1-8 a 8¼; S. Island 13½ a 24*d*. Hides, B. A 10 a 12*d*.; Logwood, Camp. 7*l* a 7 10; Cod oil 20*l*. a 20 10; Green. whale 20 10; Linseed, gal. 1*s*. 6*d*. a 1*s*. 8.

LIVERPOOL, May 30.—Sales of Cotton for the week are 19,000 bags at an advance of 1-8*d* per lb. on the last week's currency. The import is 20,000 bags.

Corn Exchange, Liverpool May, 26.—Holders of wheat demanded generally 1 a 2*d*. advance on last week's prices, which was realized on the few sales made.

HAVRE, May 26.—The public sale of 500 chests of Indigo took place to-day. The fine were withdrawn, no buyers. The remainder of the sale went off at better prices than had been generally anticipated

MANUFACTORY OF AGRICULTURAL IMPLEMENTS.

The subscriber is just finishing a quantity of Wheat Fans, which he is sure will give satisfaction to the purchasers, and will be warranted superior. Also, on hand, a full assortment of Davis' Improved Patent Ploughs, of wrought and cast Shares; likewise of the Improved Barshare Ploughs; Brown's Vertical Wool Spinners; Patent Cylindrical Straw Cutter, and most other Implements of husbandry on hand as usual.

JONATHAN S. EASTMAN,
No. 36, *Pratt-st. Baltimore.*

N. B. For sale, a quantity of Turnip and Millet Seed, which will be warranted of good quality, and at low prices. *July* 18.

AN ENGLISH AGRICULTURIST,

At present in Baltimore, is desirous to invest 25,000 dollars at a price according with the times, in an improved and improvable estate, situate in a healthy and desirable part of the western shore of Maryland or Virginia, removed from tide water, with facilities for the transfer of its produce at an easy rate to a good market.

The improvements must consist of a good dwelling House, with suitable offices, Barns, Stabling, negro Houses, Orcharding, Gardens, &c. It must be well watered, and contain meadow and pasture land sufficient to maintain a large stock of sheep and cattle If a portion of the estate consist of high lands unfit for cultivation it will be no objection, provided they are furnished with good timber. It must be proved to the satisfaction of the purchaser, that the lands under cultivation, have not been exhausted by improvident cropping, and that the crops grown thereon are of the first quality.—The advertiser will prefer entering upon an estate already stocked, with negroes sufficient for its cultivation, taking the live and dead stock thereon if approved.—Apply by letter, *post paid*, addressed for J. B. at the office of the American Farmer. *July* 18.

CATTLE FOR SALE.

Three FULL-BLOOD DEVONS, descendants of the cattle sent by Coke, of England, to Patterson and Caton, Baltimore Pedigree extract from Caton's letter:

May 25, 1825.—"Dorcas, a Heifer, from the imported Cow Europa, by Diomed—calved 25th March, 1825."

"Ruler, a Bull calf, from Diana, by Diomed—calved 2d May, 1825 Diana is the Daughter of the imported Cow Flora, by Pompey The Cow had a Heifer Calf the 7th of March, 1827, by Ruler, which is now a fine yearling."

I paid for Dorcas and Ruler, when calves, $250 in Baltimore; but wishing to remove to the west, I would take for the three $200—delivered at my farm, or in Tappahannock. Letters addressed to EDMUND F. NOEL, Essex county, Va. post paid, will be attended to.

HORTICULTURAL AND BOTANICAL.

A Partner Wanted,

Who can command a capital which he would be willing to invest in establishing a Horticultural and Botanical Garden at Baltimore. He may now have an opportunity of forming a connection with a person capable of conducting such an establishment, and who possesses *many* advantages. For further information, inquire personally, or by letter, post paid, to G. F. Miller. Baltimore. *June* 18, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson,
Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

The Inspection of Tobacco the last two weeks, 255 hhds. Maryland, 155 hhds. Kentucky, 97 Ohio, 2 Virginia, and 2 Pennsylvania—total, 511 hhds. The demand the week past has been very limited.

TOBACCO.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3 00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 3.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $6.00 *a* 6 50—superfine Howard-st. 4.62½ *a* 4.75; city mills, 4.37½ *a* 4.50; Susquehanna, 4.37½ *a* 4.50—CORN MEAL, bbl. 2.50—GRAIN, best red wheat .80 *a* .85—best white wheat, .90 *a* 1.05—ordinary to good, 75*a*.80—CORN, .36 *a* 38—RYE, 45—OATS, 20 *a* .22—BEANS, .90 *a* 1.10—PEAS, 40 *a* .50—CLOVER SEED, 3.50 *a* 3.75—TIMOTHY, 1.50 *a* 2.25—ORCHARD GRASS SEED, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* 50 pr. lb—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds 1st proof, 21 *a* .21½—bbls. .23 *a* .24—WOOL common, unwashed, .15 *a* .16—washed, .18 *a* 20—crossed, .20 *a* 22—three-quarter, .25 *a* .30—full do. .30 *a* 50, accord'g to qual.—HEMP, Russia, ton, $220—Country, dew rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No 1, 6 25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No 2, 6 00; No. 3, 3.50 *a* 3 75—BACON, hams, Balt cured, .10: do Eastern Shore, 12½—hog round, cured, 8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1 5 bbl.

Sales of corn yesterday at 36 cts. in store, 37½ cts. afloat—quality good—in demand.

MARKETING—Butter, per lb. .12½ *a* 25; Eggs, dozen .12; Potatoes, bush .75, Chickens, dozen, 2.50 *a* 3.00; Beef prime pieces lb. .8 *a* .10; Veal. .8; Mutton, .6½ *a* .7; Pork, 4.50 *a* 5.00; young Ducks, doz. 2.50 *a* 3 00; young Lambs, dressed, 1.75 *a* 2 00; do. Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6 00; Sausages, per lb. .8 *a* .10; Currants, do. .12½; Soft Crabs, doz. 1.50; Hard do. 12½ *a* 18¾.

HAY, per ton, $7 50 *a* 8.00; Rye Straw, 5.00; Cut Grass, per bundle, .10 *a* .12½.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St Paul and Market-sts, where every description of printing is neatly executed.

AGRICULTURE.

SHEEP AND WOOL.

"As an object of national attention, the coat of the sheep is of the first importance; and every wilful attempt to supplant or debase it, is an act of treason against the state." MARSHALL.

[In a late number of the American Farmer, we stated it to be our wish, in the course of this volume, to lay before our readers such suggestions and information on the subject of *sheep* and *wool*, as might appear best calculated to enlighten, and thereby render more profitable, the labour and capital of those who are employing, or may be disposed to employ, a portion of their time and industry in the cultivation of these resources. The reader must not, however, suppose it to be our purpose to collect facts and observations adapted only to the case of those who propose to go *very largely* into the wool growing business, as a leading and almost exclusive pursuit: from the entertainment of such a design we should be withheld by various considerations.—In the first place, there are too few of the subscribers to this paper, to whom facts and observations on such a subject would apply; neither are we prepared to encourage large speculations in that way. It does not appear to us that the circumstances and common courses of agriculture in this country render it safe for men of large or small capital, to rely in any great or exclusive degree upon a branch of husbandry so precarious, as, on many accounts, the growing of wool seems yet to be in America. But the consideration which prompts us to seek, and to propagate information on sheep husbandry generally, is the undeniable fact, that almost every landholding subscriber to this journal *does* keep a *certain number of sheep;* and the question is, whether the capital, be it much or little, which he has invested in sheep stock, shall be used in a way to make it yield the *highest attainable profit.* We do not mean to discuss the effects of the tariff on the interests *of* wool growers, though we shall be glad to have *practical* illustrations of that question from those who will favour us with facts and their deductions from them. What we propose is, to exhort those who *do* keep, or who may intend to keep a certain number of sheep, whether small or large, to select such as are best adapted to the peculiar circumstances of their own case, and to ascertain and practise the surest methods of modifying and improving them in the best manner, and to the highest degree, whether in reference to carcass or fleece, as the case may be.

Let it not be said that such an exhortation conveys reproach, as it implies a carelessness and inattention on the part of those for whom it is intended, that no farmer of common sense could be guilty of. Of all ungracious things, none is said to be more so than giving advice; and that of which we stand most in need is not always the least offensive. But we will run the risk of consequences, for the sake of bringing every farmer to reflect whether the subject in hand *has* had bestowed upon it the degree of inquiry and consideration and care which is due to the smallest of his affairs! Suppose his flock to be small—say 100, or 50, or even 20, does it follow that they should be left without care, becoming, from year to year, more diminutive and ragged? The best being always chosen for the knife, and leaving the worst to keep up the flock! Is it not worth his regard, merely as a matter of amusement and humanity, to keep them in good health by proper food and shelter, and to see them constantly meliorating under skilful management? And must it not be admitted, that the smaller the flock, the greater the reproach, if they display not the highest qualities of which they are susceptible? Explanatory of the light in which the neglect of the farmer in the *small items*, of his concerns ought to be viewed, we will suppose the case of a merchant who has one hundred dollars to invest. There are various stocks, and varieties of funds, and property without number, from which to choose—but instead of carefully informing himself of that which is most *profitable* and most *stable*, he buys or employs another to buy at random, and chooses that which is not of stable constitution, nor likely long to be in demand in the market. When the interest accrues, instead of drawing and reinvesting it, that it may go on increasing and multiplying, he suffers it to lie in a state of barrenness, and at last loses the whole by his own indolence, or the roguery or misfortune of his agents: would he not be called the most foolish and improvident of men? and is it not so with the farmer who invests or holds a certain sum in sheep or cattle, or horses, ill adapted to the purposes of his farm, paying no attention to, or choosing the worst for his *stock* sheep? or going for *meat*, when according to the distance from market, the state of the market, the policy of the laws, &c. he ought to keep an eye on the *fleece!*—Every head of domestic animals, every fowl, every fruit tree, every square of vegetables, every pound of butter, every implement of husbandry the farmer owns, he should consider as so much *money;* and it should be his constant care to have all of the best and most suitable kind and quality, to the end that, like money in the stocks, they may yield him the *highest dividend.* The question, let us repeat it, is, do our agricultural friends consider every thing they hold in that light, and act with strict and invariable reference to that consideration? If they do not, then will it be admitted that what has been said is not uncalled for; and if they *do*, they will be glad to receive hints from any quarter that may enable them to improve and make more profitable, even the smallest of their investments—and for the present we return to SHEEP and WOOL.

Our extracts will be taken, in the first instance, chiefly from "Luccock's Essay on Wool."]

"When we recollect the number of succeeding ages through which this valuable material has been applied to some of the prime conveniences of life, and the immense number of persons who have made it an object of their regard, we are almost induced to believe that it must already be produced in its most perfect state, that its general properties must be universally understood, and that the most ready means of rendering them useful, have been every where adopted. But when we notice the state of "wool bearing animals, either in our own country, or as they exist among foreigners, we are compelled to form a very different opinion; and the improvements which have been adopted in almost every branch of the woollen manufactory, at different periods of its history, serve to convince us that there is *still much to be attained*, even by nations who have most reason to boast of their superior proficiency."

"Some of the remarks, which he has met with and adopted, were new to him; many have been confirmed by his own observation, in almost every district in England, and through the course of several years attention to his occupation as a woolstapler. The deductions which he has made, he trusts, will be authorized by the premises from which they are drawn, and though they cannot always be supposed to arrive at the certainty of demonstration, yet he hopes that they will always approximate to truth."

"Certain it is, however, that the amelioration of the flocks has always been closely connected with the progress of the arts, and of civilization; for we uniformly find, in countries where these have flourished, a race of sheep which yield wool much superior to that which we find all around them."

"To trace all the alterations which the substance has undergone, is in this age utterly impossible, nor does my acquaintance with ancient history permit me to be positive as to the period when they were successively introduced into different parts of the civilized world. We must satisfy ourselves with mentioning some circumstances, which appear to have had a considerable influence in promoting its improvement, hoping that some literary gentleman will, at a future time, condense the information which is scattered through the ancient writings, and gratify the public curiosity upon a subject so interesting.

"The laniferous* animals were very early diffused over the western parts of Asia; the time when they were introduced into Europe, is too remote to come within the range of authentic history. At first probably they were domesticated for the sake of their milk, the common nutriment even now of most pastoral nations. But this was not long the sole object of their owner's care, for he soon found that their skins also were capable of contributing very materially to his comfort, especially in damp situations and mountainous countries. In this state of society, sheep and goats appear to have been thought of nearly equal value; and, if there was any preference, it was given to the latter animal.

"Perhaps the amelioration of the fleece, like the improvements of mankind in most of the useful arts, was less the result of design than of accident; and if the Argali were really the parent of the domestic sheep, it must have advanced considerably before we have a particular account of its changes. The first flock, which is minutely described, was found about seventeen hundred and sixty years before the Christian era, in Mesopotamia, or that part of Persia which lies between the rivers Euphrates and Tigris. It was perfectly domesticated, consisting both of goats and sheep, the former of which were black, and the latter a brown colour; a circumstance which proves that it had undergone less alteration than might have been expected.—The state of the flock excited no surprise in the mind of a traveller, who had gone thither from Syria, which it probably would have done, had it not been familiar to him in his own country; and appears to intimate that black and brown were the usual colours of these animals throughout the extent of both these countries. In his native land, moreover, he had superintended the descendants of flocks and of herds, which about a hundred and fifty years before, were brought out of Egypt; and if these continued to be of a dark and dingy hue, it is more than probable that their progenitors were of no other colour, and that the flocks of the then known world, were, in this respect, nearly similar. During his residence in a foreign land, he continued the profession of a shepherd, and produced little or no alteration in the colour of his fleeces for the space of fourteen years. At the end of this term, the capricious temper of his master induced one to offer, and the other to accept, as the reward of continued service, that portion of the flocks which had any white in them, and those lambs and kids which should be produced with a mottled coat, whether their dams were like themselves, or of one uniform colour. As a skilful breeder, he took proper measures to produce a ring streaked and spotted race; while as one determined to enrich himself, he concealed the superiority of his knowledge, and the means which he adopted. From this apparently trivial circumstance, arose that entire change in the breed of the flocks, which was first witnessed in the eastern world, and which is known to have established itself, at successive periods, in the western. It was not owing to the demands of manufactures, nor even to the volatility of taste; but is one of those numerous circumstances in human affairs, which history often hints at, but never pursues, although they are found to have an influence upon all succeeding generations

"This new variety of flocks soon established itself

[* Wool-bearing.]

in the country where it was produced, and gradually diffused itself southwards, as far as the desart of Arabia, so that in the space of three hundred years, its whiteness had become proverbial. Indeed, the colour of the fleece must have been particularly attended to, and have attained a high degree of excellency, for a devout poet of that age, in the sublimity of his description, compares it to the snow; and an amorous one, shortly afterwards, asserts that the teeth of his swarthy mistress were like a flock of sheep new from the washing; and although in these cases we may be disposed to make allowance for the fancy of the poet, and the strength of eastern comparisons, yet we cannot but suppose that the beauty of the fleece gave some propriety to the simile, and delicacy to the compliment. In the desart, where people were less associated, and the influence of wealth and taste less prevalent, the sheep perhaps retained their original colour for nearly five centuries longer. Another striking instance of the slow progress of agricultural improvements, especially among people who adopt a wandering and unsettled mode of life.

"This alteration in the colour of wool evidently took the line of the richest soils, and spread its influence most readily through countries where the arts of husbandry had made the greatest progress, but seldom passed their boundaries. From Persia, descending the Euphrates, and passing over the richer countries of Syria, it reached the borders of the Nile. But it is unreasonable to suppose, that it proceeded only in that direction. If it extended itself northward, ascended the river, it must soon have reached the banks of the Phasis, and have been spread through the old kingdom of Colchis. In later ages, as we have already conjectured, it passed from thence into Greece.

"When it was found possible to procure a white kind of wool, the taste of the world appears to have been favourable to its production; otherwise it must soon have degenerated to its primitive colour. How it comes to pass that this taste existed, and even continues to display itself in most nations where wool is produced in any shape, we have no need to inquire; the fact is sufficiently obvious, and certainly had some influence in promoting its culture, both in the earlier and later stages. And when we investigate the causes which have contributed to the improvement of our flocks, we ought not entirely to overlook it. The superior cheerfulness which sheep and goats, with white fleeces, communicate to rural scenery; the cleanliness which wool of that description is calculated to promote, when used as an article of furniture or dress; and, above all, the greater variety and vividness of the artificial tints with which it may be embued, which always gratifies the taste for gaudy trappings, so common among the ruder nations, have doubtless conspired, in some good measure, to render it more valuable than that, which was remarkable only for its brown and dusky appearance."

[The first extracts from the able essay of the author in hand, are, it is true, of not much practical bearing; but that is to be expected in the introduction to an elaborate treatise on a subject of great national importance, and is amply compensated for here by the beauty of the language and the historical information imparted. In the next number we shall commence with what is more practical; explanatory of the *causes which act immediately on the fleece.*]

HAY AND FODDER.

Great losses are annually sustained in some parts of the United States in making hay, and in others, in curing corn blades, commonly called fodder.—Mine, in a course of many years, have, I think, amounted to a moiety of the crops; and most of the expedients I have resorted to for avoiding these losses, have been but partially beneficial. Grass loses much both in quantity and substance by an exposure to the sun in curing it, and fodder more, being thus exposed in small bundles. Both, and particularly the last, suffer greatly by dews and rains. This year I have made the most promising experiment for remedying these evils. A large meadow in bottom land, of a grass called red-top or herd's-grass, was cut in dry weather, and shocked in large shocks quite green, but dry; that is, not wet with either dew or rain, in the following mode. Four sticks of five feet long, of the thickness of a man's wrist or more, were set up in a square of two feet wide at bottom, and meeting at top in a pyramidal form, where the shock was to stand. One at least of these sticks should be forked at top, to keep them steady whilst the hay is putting round them. A round log, about six feet long and six inches in diameter, was laid upon the ground, with one end reaching to the centre of the two feet square, between the sticks, and the other raised upon a fork about eighteen inches, for the purposes of enlarging the flue presently mentioned, lest it should be closed by the pressure of the hay, and that the log may be more easily drawn out, when the shock is finished. Around and over the sticks, the shock was made, its top reaching two or three feet above the top of the sticks. The purpose of the log, was to make a flue for the admission of fresh air into the centre of the shock, and the expulsion of the air heated by the fermentation of the grass in curing. The flues were made to face the point from which the wind usually blows at the time of hay making. If any flues happened to be closed by the pressure of the grass, they were easily opened by a smaller and pointed log; or, when the largeness of a shock threatened this inconvenience, it was effectually prevented by inserting into the flue a short forked stick as soon as the log was removed, to hold up the hay. As the logs are removed as soon as the shock is finished, two or three are sufficient for following a dozen of mowers. The hay thus made is the best I ever saw, and the efficacy of the mode of curing it, was strongly supported, by the growing grass under the shocks having been uninjured; whereas I never left shocks so long in one spot before, without its having been killed by the undissipated fermentation of the hay in curing. Corn blades or fodder, sustain an immense loss, even in dry weather, by two or three days exposure to the sun and dews; and in wet they are nearly ruined. For an experiment, I shocked them in the mode just explained, quite green and dry; but I chiefly allowed them from four to eight hours sun, before they were shocked. Thus was made the best fodder I have seen. But the weather was favourable. The ends of the blades were laid outwards, and the shocks bound at top by a rope made of the blades.

[*Taylor's Arator.*

TO PREVENT RIVER BANKS WASHING.

Stevenson's Point, Perquiman's Co., N. C.
J. S. Skinner, Esq. *July* 5, 1828.

Sir,—Some years since I addressed you; and requested information upon the subject of the washing of the banks of wide water courses. A Mr. Martin, of Tennessee, communicated his ideas upon the subject, and recommended the cane; but as it is impossible to rear it upon the waters here on account of the rapid inroads, (time being necessary for its growth,) I have no dependence upon it *in the first instance*, and perhaps not at all, as our hogs and cattle I expect would destroy it. Indeed, sir, where a coarse kind of water grass, (very much resembling the wire grass,) has for a twelve month taken possession, even of a slope, one of our high winds will rout it in a few hours, and make the bank as perpendicular there as at any other place. I refer you to my communication in the 3d volume of your work, page 6.

I make no doubt, sir, but that immense tracts of our best lands are thus exposed, elsewhere, besides on the Albemarle, and that many have succeeded in arresting the evil. Let me beg of them to communicate through your valuable paper to the public all their plans. I am, sir, exposed on one side to a scope of forty odd miles, and on the other at the mouth of a wide river, (2½ miles,) where the waves appear from their sudden confinement to be more destructive.

Here, and in its vicinity, our crops of wheat have been entirely cut off by the rust, (presumed from the warm winter,) but the corn promises a tolerable crop. Your most obed't serv't,

JOHN H. JACOCKS.

(From Bordley's Husbandry.)

VEALS.

In selling veal to butchers their haggling was extremely disagreeable; and to avoid it I sometimes either at once broke off, or gave up to their offers. At length, after weighing veals killed for my family, I fixed on a price by live weight, at which to sell. The butcher at first refused to be fixed at any rate; they afterwards came to, and agreed at 3*d.* live weight; 3 cents 3 mills 3-10.

A veal alive weighed 146 *lb.*
—The four quarters 70

which is within 3*lb.* of half the live weight:

At 3*d.* live weight, this veal would cost them 36*s.* 6*d.*; but, for such, they used to give me 32*s.* to 33*s.* on the foot. The first sold by live weight were 4 veals; medium live weight, 133¼, which averaged 33*s.* 2*d.* a veal. They usually sold at 7*d.* scarcely any part under 6*d.* sometimes 7½ and 8*d.* Their gain was above 40 per cent. Lord Kaims says, butchers gain but 5 per cent. in Scotland. They disliked the method by live weight; because of the certainty reducing usual profits, gained from their superior skill in estimating the weight and value of veals.

HAMS.

	lb.		*lb.*
1788. Dec. 2—20 of my family hams trimmed, weighed green, ...	321	or each	16 6-10
1789. June 30—They weighed, when full smoked,	256		12 8-10
Evaporations	65		3 8-10

The loss of weight 20¼ p. cent, or about 1-5th.

Dec. 22. A tenant's hams; two weighed, green and trimmed	31
Aug. 11. The same when smoked	26
Evaporation	5 or 16 p. cent.

The tenant's were not so much smoked or dried, as he cured them for sale and to weigh.

HORTICULTURE.

PLUMS.

Mr. Editor,

Your correspondent,[*] "H. B., of Dayton, Ohio," has, by his remarks on the protection of peach trees, conferred a favour upon all the admirers of that fine fruit. As the wasp* or fly, or whatever else the enemy is, has been observed to perforate and deposite his eggs in a particular part of the tree, an effectual remedy must, no doubt, be found in sheltering that part from his approaches. Whether this be done by surrounding it with ashes, as recommended and practised by your correspondent, or by laying refuse tobacco around the place, or wrapping in coarse brown paper,* tarred on the outside, that portion of the body of the tree, is material only so far as one of the methods may be found by experience to be more efficacious than the others. It is a matter of equal regret and surprise, that, being so simple and so easily adopted, some of them are not resorted to by all who have, or wish to have, good fruit.

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[*] It is the opinion of many accurate observers, that the egg from which the worm proceeds, is laid by a blue steel-coloured wasp, which makes its appearance about this time. It would be curious and useful for any one versed in such inquiries, to give the public a history of this insect, from its production to its death.

I feel so much indebted to your correspondent for the trouble he has taken, and the interest he displays on the subject, that, although not myself acquainted with the details of the culture of the plum, I will nevertheless inform him of some facts which daily come under my notice, that he may profit by them.

Plums, of the finest quality and of the finest sorts, are raised in many places in the city of Baltimore. Not many are brought to market, because the trees belong generally to persons who use all the fruit themselves. Whether any equally good are produced *in the country*, I cannot say, for my observation has not extended so far. It is a very common opinion, however, that they *will not* succeed in the country; which, I think, is a mistake, but which would naturally lead us to suppose, without having any positive knowledge of the fact, that they *do not* succeed there now.

The places, in town, in which I have seen fine healthy plum trees, bending under fruit arrived at perfection, are yards, which are entirely paved with brick up to within an inch or two of the body of the tree, and in which the trees seem to be about ten or twelve feet, or perhaps less, apart. In some instances, the yards are so encompassed with buildings, that, I should think the trees must be deprived of a part of the morning sun and much of the afternoon, without taking their own shade into consideration. One of the yards to which I allude, is entirely covered from the south by high brick houses; and another, open to the south, is shut up at the north and west. In the latter, the trees stand so close, that yellow plums, and blue, and white, hang promiscuously above your head, as if they grew on the same branch. The trees appeared to me to have been washed with some mixture similar to the one mentioned by your correspondent.

I take it for granted that the trees owe their preservation, in part at least, to the brick pavement; for I have often heard it asserted, by persons apparently conversant with the question, that the decaying and dropping of the fruit is occasioned by the growth and ravages of a worm, produced from an egg deposited by the *curculio;* and that the first object of this worm, when its temporary shelter (both its food and habitation,) falls; is to conceal itself in the earth, where it undergoes various changes, and whence it, or its brood returns to commit new depredations. By paving, therefore, you destroy it: and, the next year, the *curculio*, exterminated, or else deterred by instinct from laying its egg in so dangerous a place, disappears. The effect of paving has been produced, I have understood, by allowing hogs to run loose among the trees, and devour all the fruit that falls; and also, by keeping the earth hard by trampling or walking on it.

To wash the trees with the mixture before mentioned, must undoubtedly be very useful, and perhaps even an indispensable auxiliary to the precaution of paving. It should be applied, I am inclined to think, in the spring when the buds are about to burst, and in the fall when the leaves are dying: for, it may be supposed at those seasons the bark contains the greatest number of insects' eggs; those that are to be hatched during the spring and summer, and those that are to pass the winter in its folds and be hatched the ensuing year. If, indeed, the wash were used once a month, it could do no harm and might be very beneficial; for there may be as many insects vivified, and as many eggs laid by them in one month as in the others.

I have remarked, however, that there is one insect, the *caterpillar*, which both these precautions have not been able, in all places, to repress. The trees in some of the yards to which I have referred are entirely stripped of their leaves. The late frost had left no fruit to be injured. Vines, forest trees, and fruit trees of every kind, are subject to their attacks. Several modes of destroying them have been suggested. A friend told me, the other day, that he had killed by the following means those that infested his yard. He had greased a large cotton rag, rubbed it well with powdered sulphur, rolled it into a ball, and fastened it to the end of a long fishing-rod, with which, after setting it on fire, he held it under the caterpillars, wherever he could see them. Other persons go round and pick them off one by one, and crush them.—Others sprinkle them with soap suds, or lime water, or a solution of corrosive sublimate. But I think I should prefer the fumigating. Washing the body of the tree is of little or no avail, for the caterpillar deposites its eggs on the branches, and generally on the smallest, if I am not mistaken, placing them close together and around the branch like a ring; and they so much resemble the bark in colour, that they are not readily perceived.

Another of my friends has adopted a plan which promises very well. In his yard he has several very fine apricot trees, and one or two plum trees, some of which are quite large, and the others young and small. Around the latter, about a foot above the ground, he wrapped a rag of linen or cotton well greased; with the old ones he took no precautions, and the latter are almost entirely stript of their leaves, while the others have wholly escaped from the insect. It seems reasonable to believe, that unless the caterpillar's eggs be hatched on the tree, that insect must crawl up it to feast on the leaves; and this you prevent by the greased cloth or by tar, or almost any other sticky substance, that will not dry too soon. If the caterpillars be hatched on the tree, as is generally the case, they must be destroyed as before directed. Whether, in this species of caterpillar, it be the worm itself that lays the eggs, or whether, as it is most probable, that function is performed by a moth, I am not competent to determine. If the former be the fact, the propagation of that disgusting insect may be much more easily prevented. At all events, it is very certain that many of them do reach the leaves by crawling up the bark of the tree.

All these remarks will apply, I presume, to the apricot, nectarine and peach, as well as to the plum; but it is only with the rarer and finer sorts of fruits that so much pains will commonly be taken, and perhaps they are not always equally necessary. The apple tree itself does not always escape the visits of the *grub*, or worm that is found in the bark just below the surface of the ground. I have seen a fine young tree of that kind entirely destroyed by it; and, at the country-seat of a distinguished gentleman near town, I found his apple trees, and even pear trees, if I recollect right, protected with brown paper, or rags, or matting, as recommended for the peach. It is not improbable that the wasp, or whatever it may be, that seeks in the latter kind of tree a nest for its eggs, will attack other kinds when it shall be driven from its favourite resort.

An Amateur merely.

HEDGES.

Answer to inquiries in No. 15, Vol. 10.

Mr. Skinner,

In the 15th number of the current volume of the American Farmer, "A correspondent wishes to know which is the best kind of thorns for hedges," &c. I have had some experience in that branch of improvement, and am willing to communicate it. I have planted three different kinds, namely: the Virginia thorn, raised in abundance, and sold by Mr. Joshua Pierce, at his nursery, Linnæan Hill, near Washington, from 4 to $5 per thousand, according to the quantity purchased. The English white thorn, which I imported from Liverpool; cost with charges from 5 to $6 per thousand, and a native thorn found in my own neighbourhood, and which I have seen in abundance in several places in this state and Pennsylvania; I know not the botanical name, but in a natural state, it grows large, of a circular formed top, with a dark green oval leaf, something resembling that of a pear tree, the thorns very long and sharp, the berries large and red. I have been told it is the same as the New Castle thorn; for the mode of raising the plants, see Mr. Mahon's Gardening. The first mentioned, I think, makes the handsomest hedge; I would prefer it for a garden or lawn; the second sends out a great many lateral branches, and makes a close compact fence; the third is of a most exuberant growth, and shoots out in all directions. perhaps the greatest objection will be the expense of keeping it in proper bounds; I have had shoots of one year's growth upwards of 6 feet long. I am of opinion that with proper management, a sufficient fence can be made of any of the three kinds in 4 or 5 years. I have also a hedge of the wild crab apple, that I think will answer the purpose, and am now preparing to plant the honey locust, that I think may excel them all, but as yet cannot positively decide.—My mode of planting is, after manuring the ground well, and planting potatoes on it, (which enriches and cleans it from weeds) I stretch two lines in the intended direction at a foot apart, and mark it off with a spade as deep as possible; then dig it out as deep as the good soil goes; this I lay on the one side of the trench, and shovel out the subsoil on the other side to the depth of 9 or 10 inches; this being done, let a careful hand go into the trench, and place the plants against each side of it at the distance of 8 or 9 inches, forming a double row 12 inches apart, and 8 or 9 distant in the rows , ' . " . " . having a smart boy to shovel in first the good earth, and then what came from below; care must be taken to fix the plants at the proper distance, and tramp the earth firmly about the roots. Before planting, I cut off all the straggling roots, and afterwards I cut the tops within an inch of the surface; after the first year, I again cut all off about three inches from the ground; after the second, about twelve inches, and so on every year, letting them rise gradually, according to their vigour, till they come to a proper height;

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* This process, as I have heard it described and have practised it, is as follows. Scoop out the earth immediately around the body of the tree, in the form of a basin, about six inches deep. Examine whether there be any worms in the bark, which may be known by its being black or decayed, and by the gums having exuded. If there be any, pick them out carefully, and cut the bark away smooth and clean wherever it is injured; but do not cut away more than is necessary for those purposes. On the wound you may put a composition of clay, cow dung, and urine, to facilitate its healing. If no worms be there, the knife must, of course, not be used. Then take some coarse brown paper, (commonly called sheathing paper,) or matting, or coarse cloth, or any other similar substance. Wrap it around the tree, so that the lower edge may touch the ground about six inches below the surface, and the upper edge reach about six inches above the surface; tie it with twine, matting, yarn, or any thing that will press it tight and close to the tree. Then tar or pitch it well on the outside with a large painter's brush; and, finally, throw back the earth into its place, so as to fill the hole that was made and to assume its former level. This covering will last, it is said, several years. If the tree be large it will require half a sheet of the paper; if small, a quarter of a sheet. A man and a boy can work the largest orchard in this way, in one, or, at the most, two days. A gallon of pitch or tar will be enough; and the whole expense would not exceed 3 or 4 dollars.

by these means I thicken my hedge at the bottom, otherwise it would be no fence, especially against the swinish multitude, that are always on the look out and ready for mischief. As to planting, I consider it immaterial, whether tis done in fall, winter or spring, if the ground be in good order; but if you have much to do, and defer it to the spring, there is a chance of the buds putting out before planting, which I would avoid if possible.

Probable Cost.

I estimate that the potatoe crop will pay for manuring and preparing the ground.

I suppose a good spadesman, assisted by a boy, will plant 20 perches in a day—wages and victuals I value at $1.

Suppose you plant at 8 inches distance in the row, it will require 50 plants to the perch—and suppose you value the plants at $4 per thousand, the cost per perch will be as follows, viz:

50 plants at $4 per thousand,	20 cts.
Expense of labour,	05
	cts. 25 per perch.

Protection from cattle and sheep, and careful weeding; will be necessary for 3 or 4 years. They should not be planted nearer any protecting fence, than 3 feet, nor where the shade of trees will reach them, nor should they be allowed to rise higher than about 5 feet at any time, for if they are allowed to shoot up, they will get thin at the bottom.

I am so well convinced of the efficacy and necessity of this species of improvement, that I am astonished at its being so little attended to, and I am still more astonished, that I never saw by any agricultural society, the least notice taken or encouragement given to it.

Yours respectfully,
C. BIRNIE.

Thorndale, Taneytown, 14th July, 1828.

NEW MODE OF KILLING CATERPILLARS--*by Shooting.*

Greensburgh, Pa. 12th July, 1828.

MR. SKINNER,

I have tried many of the schemes, published in your valuable paper, for the destruction of caterpillars on my fruit trees, but without success. For the two past years, I have used my gun charged with a small load of gunpowder and tow wad, and find it much easier, and more effectual than any other means within my power. By placing the muzzle of the piece about a foot from the nest, and firing the charge into it, the worms are killed and scattered, and the nest entirely destroyed and torn from the branches of the tree. This does no injury to the tree—in a few days vegetation will be restored where the leaves had been entirely ruined by the worm.

If the nests are too high to be got at by standing on the ground, it is easy to climb the tree and go out on the limbs, or ascend to them by means of a ladder, and a person can carry with him his ammunition and a light fowling-piece or a pistol, and carry on the war in the enemies' own country.

TO PREVENT THE DESTRUCTION OF BEES, BY THE BEE-MILLER.

Devan's Ferry, Bertie Co., N. C., July 8, 1828.

JOHN S. SKINNER, ESQ.

Sir,—Understanding that you are the publisher of a paper exclusively devoted to domestic industry and intelligence, and through which every subject upon domestic economy can be, and is readily communicated to the public; I take the liberty, through the advice of a friend, of making known to you, for publication, (should you think proper to publish the same,) my method of preventing the destruction of that useful insect, the Bee, by what is usually called the Bee-miller, or Bee-worm.

I have, sir, for many years, been the raiser of bees, and was at one time much troubled with the bee-worm; but, upon examination, I found they always bred between the bench upon which the hive sat and the bottom edges of the hive. I first adopted the method of having the bottom edges of the hive brought to so small a point or edge as to afford them no shelter; but now, during the warm season, I raise the hive by placing small sticks around under the hive, so as to raise it, say about half an inch from the bench, which I take out during winter or the cold months.

And I can say, sir, that for many years I have seen nothing of the bee-worm, and that my stock of bees have increased as fast as I can or could wish. Yours, &c. MILEY HAMILTON.

INTERNAL IMPROVEMENT.

RAFTS IN THE RED AND ATCHAFALAYA RIVERS.

There are few phenomena in nature more curious, or perhaps more misunderstood, than the obstructions called rafts in the Red and Atchafalaya, and being designated by one term, are generally considered as specially the same in both streams, which as we shall soon perceive is far from being a fact In the last number on the subject of the Mississippi, the Atchafalaya as an outlet, was noticed and discussed, but we now proceed to examine it as a continuation of Red river.

Red river is the true North American Nile, rising in New Mexico, at N. lat 35° and lon 27° W. from Washington city, augmented by numerous branches, and flowing in very nearly an easterly direction 300 miles to the 100th degree W. from the Royal Observatory at Greenwich, and 23 deg 4 m. W. from Washington city, continuing east 400 miles, and forming a boundary between the United States and Texas. Red river enters Arkansas, and curving to the S. E. a few miles, and thence south, enters Louisiana, over which it winds by a general course of S. E 200, but by a very winding channel of upwards of 300 miles.

Red river enters Louisiana near the north west angle of that state, by a single stream, but about 30 miles lower, breaks into numerous branches, presenting a most intricate maze of islands, inlets, channels, and lakes of every size, from one to thirty miles in length. This annually inundated tract lies in a direction of north west and south east, extending 60 miles, with a mean width of eight miles. Ascending, this Raft region, as it is absurdly called, commences at Grand Ecor 4 miles above Natchitoches, and has every appearance of having once been a lake, which has been gradually filled by alluvion, and what is peculiarly worthy of remark, is that as the ancient lake was disappearing, the earth by which it was obliterated, operated to form dams across the months of the small tributary rivers on each side, and by that means create new lakes. In this manner was formed, lake Bistinean, 40 miles long, and from one to three wide; lake Bodcan, 30 miles long, and from one to ten miles wide; two large lakes in the vicinity of the Cado village, Spanish lake in the vicinity of Natchitoches, and many more. These new lakes, and the remains of the still greater and more ancient lake, have a most powerful effect in checking the excess; but at the same time, lengthens the duration of the floods of Red river. This great tributary of the Delta, rather than of the Mississippi, is a much greater stream than is commonly believed Having a comparative course of upwards of one thousand miles, and draining at least 150,000 square miles, Red river bears into Louisiana an immense body of water. The spring periodical overflow of this river is usually in the months of February, March and April, but flowing from a southern and in great part a prairie country, the evaporation of summer and autumn, reduces its volume to a very small compass. At the latter period, the lakes and low grounds in a great part drain out, or their waters are evaporated, and in October and November, immense spaces, which in February, March and April, were inundated from one to twenty feet, become meadows covered with a carpet of green and succulent herbage.

Thirty miles above its influx into the Mississippi, Red river receives its north eastern and largest branch, the Ouachita. The latter rises between Red and Arkansas rivers, lon. W. from Wash. C. 17, and at N. lat. 34 deg. 40 m; flowing thence a little east of south 300 miles, but by a very tortuous channel, joins Red river. The general features of Ouachita, are very similar to the main stream, and in particular, those of the lakes and adjacent swamps, which near the Ouachita, are at like seasons, filled and emptied, and along both rivers, operate as real reservoirs.

The great inundated tract above Natchitoches, is not rendered difficult of navigation by rafts of timber, for few such do really exist in these "thousand streams," but from the very great intricacy of the channels. I had a very large pirogue constructed in a creek of lake Bistineau, with which we navigated into and above lake Bodcan, and with which I returned by Red river, by one of its outlets below Alexandria at the Rapids, and down Boeuf river to Lemellas landing near St. Landre Opelousas. At high water, barges of large tonnage are navigated through the Raft, and for several hundred miles above, into the recesses of Arkansas and Texas.

At the Grand Ecor above Natchitoches, and at the latter village, Red river once more breaks into separate channels, which never again entirely reunite. The main stream, however, falls over its lower Rapid at Alexandria, and flowing thence by a channel, more winding if possible, than that of the Mississippi itself; the two rivers touch rather than unite, one and a half miles above the efflux of the Atchafalaya, at N. lat. 31 deg. 1 m. A moment's attention to the relative courses of Red and Atchafalaya rivers, renders the conclusion inevitable, that the latter is the continuation of the former. The banks of the two streams have a perfect resemblance to each other, and particularly in the colour of the ochreous earth of which they are composed, and from which Red river derives its name. This reddish earth, prevalent along the Boeuf and Teche, demonstrates also, the extensive agency once exercised by the waters of Red river, in places which they no longer reach.

It was noticed in my last communication, that the current of the Mississippi, was thrown from the points into the bends, and it must be evident that with the current, will floating timber be in like manner borne along the shores at the bottom of the bends.—Though only distant from each other 2508 yards, or not quite half a mile, a very salient point, from the left shore protrudes into the Mississippi, between the mouth of Red river and the efflux of Atchafalaya. Red river comes in from the north; the Mississippi meets it from the east, and the united waters rapidly sweep to the southward, and south eastward, throw out the Atchafalaya to the south west, and thence assume an eastern course of 5 or 6 miles, forming a very narrow and pointed peninsula on the eastern side of the Mississippi.

When the spring floods are at their height, an enormous body of water pours into Atchafalaya, with overwhelming rapidity. The winding of the bend above, as I have already noticed, forces the current, and with it, every floating substance it bears, directly into the Atchafalaya, down which the *debris* is carried in masses which would stagger human belief to admit as possible. At about 1774, as near as I could obtain correct information in Louisiana, a body of floating timber, large and compact enough to fill the channel of Atchafalaya, lodged in one of the very crooked bends of that stream.—The first raft was quickly augmented by new accessions, and now for upwards of fifty years, has been annually supplied, and has entirely prevented the navigation of the Hoogly of Louisiana. The raft I am now noticing, is really such in the proper meaning of the term; it is composed of trees lying in every direction, lodged and interlaced from bank to bank, and rising and falling with the water; but, at every stage of flood, completely gorging the channel from bank to bank. There are a few spots along the Atchafalaya shores, which are above annual submersion, and the immediate banks are every where more elevated than the adjacent country on both sides; but in general, the course of this outlet above and below the Teche, is through one vast annually submerged tract; a tract covered with a most dense forest, except where chequered with lakes, or lined by rivers. Though of very little consequence as a habitable surface, however, the Atchafalaya, if rendered navigable, would be of incalculable advantage, not alone to Opelousas and Attacapas, but to all Louisiana and the western states generally. To speak of nothing else, the immense stores of timber, particularly the invaluable cypress, which abound along and near its banks, are now locked from human use, must continue so until the removal of the impediment it places in the way of navigation, and some preventive against its recurrence is effected. Opening the Atchafalaya, would be to open the Courtableau, Teche and Vermillion. The unequalled advantages which might, with moderate expenditure, be taken of the peculiar natural features of these latter streams I have discussed; but there is another consideration of great weight, which should meet the attention of the people of Louisiana, and of the general government; that is, the increased value of landed property in the vicinity which would be the certain consequence of opening the Atchafalaya.

The raft or rather rafts, when I surveyed the Atchafalaya in 1808 and 1809, began at 26 miles from the outlet of that river, and continued downwards in broken fragments below the mouth of the Courtableau. These fragments are far from stationary; I witnessed breaches and removals several times, and am convinced that if acquisitions were prevented, time itself would remove the obstruction. The entrance of timber from the Mississippi, can be easily prevented, and art ought to proceed in advance of time, in abstracting a nuisance, which if removed, ample remuneration would be as certain as the operation of the laws of nature. Taken together, the whole of the rafts extend about ten miles, rising and falling, as already observed with the water.—Ten miles is 17,600 yards; the mean width, very near 220, with a depth of 3 yards. These elements would give 17,600 × 220 × 3=11,616,000 cubic yards, very nearly equal 2,450,632 cubic cords.

In the first instance, to prevent the future discharge of floating timber into the Atchafalaya, piles could be driven into the bed of that river at its efflux, and a lock constructed to admit the passage of boats and rafts. In fact, turning the floating trees down the Mississippi, would be itself no trifling advantage. The inhabitants along the banks of that river, advancing towards New Orleans, very carefully collect the timber found upon the stream, and use it as fuel.

In respect to removing the masses already accumulated in the Atchafalaya, it has been shewn to rise and fall with the water; one consequence of which circumstance is, that when the river in autumn is very low, the rafts extend from high bank to high bank, in the form of a semi-ellipse; large bodies near the shores being then left dry, could in great part be consumed by fire. The residue might be removed by means of cranes, the labor as a matter of course, becoming constantly less burthensome, as the incumbent body would be rendered less and less compact.

There has been many extremely idle tales related, and as idly believed, respecting the Atchafalaya rafts. I have heard it asserted even at Opelousas, within from 15 to 20 miles of the place, that the timber was in many places so compact as to have assumed, with mud and trees, the appearance of solid land, and that it could be passed without knowing a river flowed beneath. I have carefully surveyed the rafts in all their length, and have passed over them in numerous places. By taking a circuitous route from tree to tree, and by exposing ourselves to considerable danger, and much severe labor, they can be passed; but I saw no one place where the passage could be made without traversing at least twice the direct distance from bank to bank At very high water, indeed the act of crossing these rafts must be either one of great urgency or of still greater rashness; it was an enterprise I never undertook, except from necessity.

Detail on the subject of meliorating the navigable facilities of Louisiana might be enlarged to a volume, but the brevity of these papers sets an impassable limit to a farther investigation on that topic at present, and I close with a few observations on one of the most important problems in the physical geography of the United States. The question has been discussed for ages, how to obviate or lessen the quantum of overflow in rivers having their estuaries by extensive alluvial deltas. The necessary elements for the solution of this problem, has been collected with most care, and digested with most skill in the examples of the Rhine and Po, and more particularly the latter.

M. de Proguy sent to Italy by Napoleon, to examine the Po, recommended artificial drains, in preference to embankments; but the Italian engineers doubted the practical efficacy of drains, and though, as applied to the Mississippi, I formerly adopted the opinion of M. de Proguy; I have on examining the reasons given by Italian engineers, harboured doubts. These doubts arise from the fact, that the overflow is occasioned by the incumbent mass from above, and that, opening new; or enlarging old chanuls below, only tend to augment the pressure and increase the velocity of the current. These effects arise from the unerring laws of hydrostatics; but although all the benefits promised by M. de Proguy could not be realized, it by no means follows that manifest and great advantages would not follow from increasing the depth and width of the natural, or where practicable, making new outlets from the Mississippi.

The Atchafalaya is 110 yards wide, and leaves the Mississippi by an inclined plane of considerable declivity. This rapid descent gives a rapid current for four or five miles, it would not be a very great undertaking to pile the shores and deepen the channel so as to admit a much larger volume from the Mississippi, and admit that volume to flow a much longer period, than does the present natural outlet; but unless the new discharge was so regulated as to confine the mass to as small or even less body in a given time, the most ruinous consequences would ensue to the arable borders of the left bank of the Teche, by throwing an increased annual inundation into the bason of Atchafalaya.

Similar objections may be urged against any other drain, unless mitigated in quantity in a given period, and lengthened in time. With these restrictions, if the channels of any or all the outlets were deepened, water would of course enter from the main stream sooner, and continue to flow longer, in direct proportion to depth.

On a former occasion, I laid down the following laws as regulating the motion of water. Water moves with equal velocity, in equal times, on equally inclined planes, at equal depths.

The plane of descent, except immediately at the points of outlet, being in every part of Louisiana, very little inclined, causes the water to accumulate in the recesses distant from the streams, and to encroach on the farms in every case where the supply is unusually abundant. It is these local features and the laws by which water either moves or stands stagnant, which renders the occurrence of a breach in the levees or embankments to the Mississippi and its outlets, so serious a calamity to the inhabitants where they take place. These breaches or *crevasses*, demonstrate the effect of abstracting water from the rivers, and ought to deter from any attempt at artificial drainage unless the quantum can be fully controlled and a recipient provided.

In any case of constructing or increasing natural drains, it must be evident from the principles laid down in this paper, that the higher they are formed above the final discharge, the more effective; but in respect to the Mississippi, the Atchafalaya is the highest point where any practicable design of that kind could be carried into effect. On the east side it is only 14 miles in measure to the high lands below Loftus Heights; and on the western, a chain of water courses extend towards Avoyelles, with banks as elevated as the highest overflow, and protruded to the bank of Atchafalaya, five miles below its outlets by the Bayou de Glaize. Therefore, all the water discharged by the Mississippi, and most of that of Red river above, is forced into the space between the eastern bluffs, near Loftus Heights, and the mouth of Bayou de Glaize; three-fourths of the intermediate distance, twenty miles, being occupied by one of those long curving bends of the Mississippi.

From the diversified climates from which the periodical floods of the Delta are supplied, the entire body can never reach Louisiana at the same period, and thus nature has protected that country from submersion, at the opening of every spring, and well it is so, that those fertile plains are thus defended, as it certainly admits of very well founded doubt whether human power can do much more than has already been done by embankment, to control the overwhelming volume of water which annually traversès Louisiana. As navigable channels, nevertheless, the human hand can effect the most lasting and invaluable revolutions, and in this age, when the accomplishment of one great design is taken as an incentive to undertake, and a demonstration of the practicability of executing other plans still more magnificent, the rivers of Louisiana will not, cannot be neglected Another half century will not pass until ships of the line of the largest class will anchor before New Orleans, and steam vessels pass where entangled masses of timber now secures the reign of desolation along the banks of Atchafalaya. Nor will another fifty years pass, until steam will be employed to render habitable by drainage, immense tracts along the Atlantic coast, and shores of the Mexican Gulf, which are at present abandoned to stagnation and neglect.

LADIES' DEPARTMENT.

(From the American Journal of Education.)

Suggestions to Parents—Moral Education.

[The following article is translated from an early number of the French Journal of Education. The views of the writer of this essay, though somewhat speculative in their character, present a very instructive train of thought on a subject of great moment to human happiness, in its earliest period — The efficiency, steadiness, and consistency of parental control, lay, to a great extent, the surest foundation of regular habits in mature years; while a vaccillating, feeble, and inconsiderate management of childhood, transfuses into the character of adult life most of those evils which result from disorderly affections and ill-regulated habits.

The definition given in the following essay of the object of parental interference with the actions and feelings of infancy, is, we think, exceedingly happy. Parents are not, perhaps, sufficiently in the habit of remembering that although a command or a prohibition may be sufficient for the moment, it has not always the power of awakening thought and influencing the disposition in subsequent actions; that the great object should be to reach the will, the true source of action, and yet to affect it in such a way as to leave the child the consciousness of freedom and the pleasure of self-approbation. The study of an indirect influence over the affections, is an object in harmony with the best feelings and the happiest ingenuity of the maternal mind.]

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The stimulus to all action is the dread of pain and the thirst for pleasure; but, to be truly happy, man ought neither to flee every kind of pain nor to seek every kind of pleasure. As there are pains which are useful to us, so there are pleasures which are pernicious; and even among those which may contribute to our happiness, there are some the knowledge of which must be referred back to a period which nature itself has clearly determined, others which have no real value except so far as they have been purchased by some pain; indeed, even those which are not innocent, never ought to be lavished upon us for fear of cloying, and bringing in their train ennui, and often a disgust of life.

To form children to happy habits; to prevent them from contracting, or to correct those which might prove obstacles to their happiness—such is, in general, if I do not mistake, the object of moral education. But common pleasures, or those which we can only enjoy by participation with others—such as those attached to the exercise of beneficence, of generosity, of humanity, and of the other social virtues; but, above all, that sentiment which, in identifying us with our fellow beings, makes us enjoy all their pleasures, suffer all their sorrows, are truly those which may contribute most to our happiness, and I may add, the best calculated to inspire aversion to pernicious pleasures. I may then conclude that the principal object of moral education is, to give us the taste and the habit of this kind of pleasure. But in order that children may seek it and make the enjoyment of it a habit, it is first necessary for them to have felt and proved it: no one seeks what he knows nothing about, no one can act from motives which are never presented to his mind.

We enter into life, if we may so speak, by the gate of pain. The child weeps as soon as he feels the pressure of the air; this delicacy, this mobility of the organs, which renders it so sensitive to pain, is designed, for the same reason, to give it pleasure, of some nature or other, very lively and very attractive. We must not then be astonished, that the child is so ardent in the pursuit of every thing that amuses it, that recreates its senses or satisfies its wants; that he demands pleasure incessantly of every thing which surrounds him; that he seeks and importunes all those who can contribute to his pleasure; that their presence delights him; that their absence makes him uneasy, and draws tears from him. Most parents take all this for attachment, tenderness, love; but it is only selfishness. In all this the child thinks only of himself; is occupied only with himself. If any one wishes to be convinced of it, let him only feign to have an urgent desire for something that gives much pleasure to a child, he will rarely offer it willingly, if at all; he will usually refuse it if he is asked for it, and only give it up when he is sure of a prompt reward, or that his generosity will be liberally indemnified.

Every child whose wishes have always been anticipated, every child accustomed to receive and to taste pleasure without ever feeling the wish or the necessity of procuring it for others, must soon be disgusted with every thing whose enjoyment is facilitated to him, must regard as a right every thing which is done for him, as injustice every refusal and every condition to the accomplishment of his desires or wishes; he will fly into a passion whenever he is contradicted, and become angry, disobedient, peevish, and end perhaps by hating and regarding as so many enemies those who will wish to correct his inclinations or reform his habits.

Another result of the conduct which is usually observed towards children, is to make them regard every thing that is done for them as their due. But if you are always studying to anticipate the desires of your child, always eager to shield it from the slightest trouble—in short, if you have always granted every thing, without requiring any thing, it is impossible for you not to have planted in his soul two vices, the two greatest scourges of society—I mean pride and selfishness.

Pride.--A child accustomed to find no obstacles to his wishes, cannot fail to perceive the difference in his own condition and that of others who are incessantly going, coming, and toiling for him; for truly, since so many people take so much trouble for him, he who takes none for others must be of another and a superior nature. Add to this the profound admiration of the governess, the aunt, the grandmother, for every word that comes out of his mouth, for his gentility, his good appearance, &c. Here is certainly more than enough to turn his head; we "great children" are often so affected ourselves.

Selfishness.--A child brought up, as we here suppose, must evidently make himself the centre of every thing, refer every thing to himself, and only occupy himself with others as they can be useful to his pleasures. Why should he render a service in order to obtain one, if he can obtain it without? Why should he take a step to procure a pleasure, if he has only to move his lips for this pleasure to come to him? If it is, then, the nature of children to become selfish, it is ourselves who are inexcusable in allowing them thus to isolate themselves, when so many ties bind them to us, in allowing them to shut up their hearts from us, when we have so many means of penetrating theirs.

However weak parents may be, it is impossible, if they do not wish to make their children monsters, that they should always continue this line of conduct towards them. In proportion as a child grows up, it becomes from day to day more difficult to satisfy all his desires, to execute all his wishes. If, however, all his wishes have been gratified heretofore; if every thing has been granted him, and nothing required of him, why change our conduct towards him precisely when his physical and moral faculties begin to strengthen? Are his inclinations and habits weakened because he has grown taller? You will, perhaps, point out to him the future misfortunes that await him if he perseveres in those habits, if he continues to abandon himself to these inclinations; but what is the future to him who is never occupied but with the present? What are future evils, evils which he has never felt, in comparison with present pleasure, of which he knows the full value? Will you urge the impossibility of satisfying him? But what is impossibility to him who has always found every thing possible? It is simply injustice and ill-will on your part.

It will, perhaps, be observed to me, that I do not place sufficient dependence upon the development of reason; yet it is precisely his reason which accuses us, and justifies him in his own eyes. Human reason, and especially that which guides our childhood, is, in general, only the product of experience and of habit. Your child has always found persons eager to accomplish all his desires. You have constantly obeyed all his wishes. This connection has long been established in his train, and has acquired so much the more force as it is the more agreeable to him. It is his reason itself which shows him unjust and ill-intentioned people, in all those who contradict his habits and inclinations. And what must a feeling of injustice and ill-will in those whom he regards as the enemies to his pleasure, produce in the soul of a child—anger, rage, hatred. Yes, I maintain it, the malignant passions are always the product of a bad education.

It will, doubtless, be objected here, that I leave to parents and children but one alternative, and that an embarrassing one; for, on one side, if we always yield to the wishes of children, pride and selfishness will necessarily take possession of their souls; on the other side, if we resist them and contradict them, they must necessarily be delivered up to malignant passions. However, we must either resist or yield to their wishes.

We may do better: we may prevent them from having desires or wishes which they will be obliged to resist, or we may resist them in an indirect manner; for the essential object of moral education is, not to make children do what we wish, but to make *them* wish it. But to accomplish that, we must first begin by really wishing it ourselves. Let no surprise be manifested at my here questioning the reality of such wishes on the part of parents; it is but too true, that they are hardly ever convinced of this truth; and it is this indecision which so often leads them to the temptation of resisting it. Can threats, reproaches, orders given, countermanded, and contradicted a hundred times in the same day, be honoured with the name of wishes? But children are never mistaken in this respect. Slaves to our caprices, holding their existence and all the pleasures which make them love it, from us, they learn early to observe, to study our tastes, our inclinations and our characters. If they find us weak, irresolute, undecided, their imaginations immediately magnify the pleasures of which we wish to deprive them, the pain to which we wish to subject them. The temptation to resist takes possession of their minds with the hope of conquering, and gains strength, if I may so speak, from all our weakness. If, on the contrary, they are thoroughly convinced of our energy and determination of character, they take their resolution, and no longer place their happiness on a resistance to a will which they know to be immoveable. I do not recommend that you should command as a despot, and make yourself obeyed as a tyrant; man is debased by the fear inspired by a fellow creature. I wish still less that you should make him regard the yoke of your will as that of necessity, because we only regard as such that which is imposed on us by nature. But, what is better than all that, make him consider the execution of your wishes as a pleasure done to you, as a service tendered to you—in short, as a means of contributing to your happiness.

But why, it will be said, have recourse to such complicated cares, if by vigorous punishment, we can immediately obtain the same result? Obtain the same result!—doubtless, if the only thing to be considered were immediate obedience; but, I repeat it, the aim of education is not to produce obedience, but to make the child feel pleasure in doing every thing we wish. He must then be truly convinced that in doing your will he really contributes to your happiness; for man attaches himself to others still more by the good he does than by what he receives. But can a child ever believe that he contributes to your happiness, and consequently become attached to you by acts of obedience which you force from him by punishment? And do you always force those acts of obedience? How many times does it happen that he grows callous to what he calls your tyranny, and that he would rather bleed than yield to you? You have then excited in his soul malignant passions, you have made him proof both to barbarity and weakness, while he regards himself as a hero and a martyr.

A mild tempered woman, is as a balsam that heals *matrimonial sorrows.*

A perverse woman, is like a perpetual blister.

SPORTING OLIO.

Pedigrees of Thorough-bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(*Continued from page* 143.)

91. **Leonidas**, is now rising 8 years old, in high order; he was got by Col. Loyd's Traveller (who was by Morton's imported Traveller, out of the imported mare Jenny Cameron:) Leonidas' dam was got by Morton's Traveller, out of Col. Tasker's imported mare Selima, by the Godolphin Arabian.
March, 1782. John P. Posey.

92. **Fortunatus**, a fine dark bay, 4 years old this spring, and very active, 15 hands and a half high; was got by Mr. Conway's celebrated running horse, Black-and-all-Black, supposed to be the fleetest horse on the continent; his dam was a full bred daughter of Col. Tayloe's horse Yorick.
March, 1782. Tuckahoe Goochland.

93. **Claudius**, a fine bay, near 15½ hands high, rising 5 years old; he was got by old Janus, out of Celer. The dam of Celer by the imported horse Aristotle, out of an imported mare.
March, 1782. Andrew Meade.

94. **Camden** was got by old Janus, his dam the noted running mare Poll Haxen, by Jolly Roger, out of as high a bred mare as any in the state.
Harry Gaines.
King and Queen County, 1782.

95. **Camillus**, a beautiful bay, prettily marked, near 15 hands high, was got by Mr. Burwell's Traveller, his dam Camilla, (one of the largest and finest mares in America,) was got by old Fearnought, his grandam by the noted imported horse Dabster, on a full blooded beautiful mare. Camillus is half brother to Mr. Burwell's Eclipse, and has the blood on both sides of the finest horses imported into this country. John Gordon.
Prince George, April, 1782.

Actæon, a beautiful high formed chesnut, 15 hands high, and rising six years old. He was got by Mr. Dandridge's Fearnought, his dam by old Fearnought, his grandam by old Jolly Roger, out of a fine mare purchased in England by the late Col. Chiswell. Actæon's sire by old Fearnought, out of Col. Byrd's imported mare Calista.
Thomas Wooldridge.
Chesterfield, May, 1712.

97. **Grenadier**, a beautiful bay, now rising seven years old, 5 feet six inches high, was got by Wilkes, whose sire was old Figure, esteemed one of the best horses ever imported; his dam was got by Selim, his grandam by Brittania, his great grandam by Childers, his g. g. grandam by Hero, an imported horse, his g. g. g. grandam by Bulrock.
Thomas Eaton.
Petersburg, Va. May, 1782.

98. **Boxer** was got by the imported horse Medley, his dam by Col. Baylor's Fearnought, his grandam by old Jolly Roger, out of a full bred imported mare. The dam of Boxer was also the dam of the noted running horse Tantrum, and the black horse owned by Col. Larkin Smith.
John Curd.
Goochland County, Va. Feb. 1797.

99. **Opemico**, a beautiful bay, 15 hands high, rising 5 years old, was got by the imported horse Medley, his dam by Lindsey's Arabian, his grandam by the imported horse Oscar, his great grandam by the noted imported horse Vampire, upon Braxton's imported mare Kitty Fisher.
New Castle, Feb. 1797. Nicholas Syme.

100. **Medley**, a beautiful grey, 15½ hands high, rising six years old; he was got by Hart's imported Medley, his dam by Sir Peyton Skipwith's Black-and-all-Black, his grandam by Bay Bolton, his great grandam by old Partner, his g. g. grandam by Longsdale, his g. g. g. grandam by old Fearnought.
Thomas White.
Hanover County, Va. March. 1782.

101. **Spangloss**, a beautiful bay, 6 years old this spring, near 16 hands high, was got by Winston's noted horse Junius, his dam by Jolly Roger, grandam by Fearnought.
March, 1797. Benj. Toler.

102. **Americus**, a fine bay, 16 hands high, 6 years old this spring; he was got by Shark, his dam by Wildaire, his grand dam by Vampire, out of Col. Braxton's imported mare, Kitty Fisher.
John Hoskins.
King and Queen County, Va. Feb. 1799.

103. **Melzar**, a fine bay, full 16 hands high; he was got by old Medley, his dam by Wildaire, his grandam by Vampire, out of Col. Braxton's imported mare Kitty Fisher. John Hoskins.
King and Queen County, Va. Feb. 1799.

104. **Adamante**, a fine bay, 15½ hands high, rising seven years old, he was got by Boxer, his dam by Lindsey's Arabian, his grandam by the noted horse Oscar, out of Braxton's imported mare Kitty Fisher.
April, 1799. Nicholas Yrne.

105. **Telegraph**, a beautiful bay, elegant form, strong and boney, 15 hands high, five years old next May; was got by Lamplighter, his dam by old Wildaire, grandam by Gen. Nelson's Rockingham, great grandam by Spanking Roger, g. g. grandam by Jolly Roger. M. Anderson.
King William, Va. March, 1800.

(*To be continued.*)

Extract to the Editor—dated

Tallahassee, (*Florida*,) *June* 15, 1828.

"You will see by the request I make, (for a copy of the rules of the Baltimore Association,) that the spirit for the "improvement of the breed of horses," has extended to this distant territory. We are about forming a club, which has for its objects the same results as the "Maryland Association;" and I am deputed to request of you the rules of your club, or any other you may have and can spare. Our funds will be amply sufficient to induce the northern horses (I mean those of Georgia and South Carolina,) to come this way on their journey to Mobile and New Orleans. The distance by land from here to New Orleans is 250 miles land, and 300 steam boat carriage. Seven hundred and fifty dollars was offered this day, on the public square, for a fine son of Sir Archie. It was refused, and the colt will remain in the neighbourhood for the benefit of those who may choose to embrace the opportunity of getting the stock of his celebrated sire. Any other information relative to that sport, will be very acceptable."

PEDIGREE OF FIGURE.

Mr. Skinner, *Marietta, July* 10, 1828.

Dear Sir,—Whilst at Annapolis, a few days since, I copied Figure's pedigree from Mr. Green's paper of March 12, 1767. It follows.

"Figure was bred by the Duke of Hamilton. He was got by Old Figure, (a grey;) Old Figure by an Arabian. His dam was the dam of Bowles' Cyrus, and got by Young Standout; his grandam the celebrated mare Old Jason. Young Figure's dam was Mariamne, dam of Sir Ralph Gore's famous grey mare. Mariamne, was got by Partner, he by Jig, and Jig by the Byerly Turk, sire of Black Hearty, and sire of the Duke of Rutland's Bonny Black, reputed the best mare ever bred in England. Partner was the sire of Tartar, who got King Herod and Favourite. Mariamne's dam by the Bald Galloway, sire of Grey Robinson, dam of Regulus. Bald Galloway by St. Victor's Barb. He was never beat."

I send you also the pedigree of Mr. Hall's Union.

UNION

Was bred by Dr. Hamilton, of Schoolfield, Prince George's county. He was got by Governor Eden's imported horse Slim; his dam by Figure, grandam by Dove, great grandam by Othello out of Selima. Taken from a paper of 1783. It is short, but of first rate. All his male ancestors were imported.

I saw many others, but they were not interesting.

With respect and esteem,

G. D.

SYME'S WILDAIR.

Mr. Skinner, *Red House, N. C., July* 12, 1828.

Sir,—I have noticed a communication in the "Farmer" of July 4th, (No. 16, vol. 10,) respecting Syme's Wildair, and as I have been referred to; I will, for the satisfaction of the writer under the signature of "J." in the communication alluded to, and all other amateurs of the blood horse, give a true account of Wildair, commonly called Syme's Wildair.

Wildair was bred and foaled in Virginia, the property of a Mr. Randolph, (the father of the late Governor Thomas M. Randolph.) He afterwards became the property of Col John Syme, of Hanover county, Va., where he stood many seasons, when he was moved higher up in Virginia. He was uniformly called Syme's Wildair. He was a bright bay, 15½ hands high, with a beautiful forehead, and having uncommonly fine eyes. He proved to be a most valuable stock getter, and was one of the finest bred horses ever raised in Virginia. He was got by Old Fearnought; his dam by Jolly Roger, out of the imported mare Kitty Fisher. There was but one more Wildair of any note or value, which stood to the North, and was imported by Mr. Delancey. He was got by Old Cade, and was bought up and re-shipped to England.

Author of "Annals of the Turf."

P. S. The pedigree of Sir Hal shall be forwarded to the Farmer, as requested, with other valuable pedigrees.

MISCELLANEOUS.

INSTINCT.

When caterpillars, observes Mr. Smellie, are shaken from a tree, in whatever direction they descend, they all instantly turn towards the trunk and climb upwards, though till now they have never been on the surface of the ground.

The vegetable kingdom offers us examples of simple instinct equally singular and marvellous. Thus the stalk of the convolvulus twines from the left or east by the south to the west, the face being towards the south: the phaseolus *vulgaris*, or kidney-bean, pursues the same course: while the honeysuckle and the hop take a perfectly reverse direction. Who will reveal to us the cause of these differences?

The sphex or ichneumon wasp, in its perfect state, feeds on the nectary of flowers; but as soon as she is fitted to deposite her eggs, she becomes actuated by an appetite of another kind. She first bores a small cylindrical hole in a sandy soil, into which, by accurately turning round, she drops an egg: she then seeks out a small green caterpillar that in-habits the leaves of the cabbage plant, and which she punctures with her sting, yet so slightly and delicately as not to kill it: she then rolls it up into a circle, and places it in the sandy nest immediately over the egg. She continues the pursuit till she has counted twelve, and bas, in like manner, deposited twelve caterpillars one over the other; and repeats the same process till she has exhausted herself of her entire stock of eggs. She immediately closes the holes and dies, intrusting her eggs to the parent heat of the sun. The egg in each separate cell or aperture is soon hatched, and finds its food duly prepared for it. It feeds progressively on the twelve caterpillars, and by the time it has exhausted them, becomes fitted for and converted into a chrysalis: in due time it awakes from its dormancy, works its way to the surface of the earth, throws off its chrysalid investment, finds itself accommodated with wings, rises into the atmosphere, feeds on the honey of plants instead of on maggots; and at length pursues the very same train of actions to provide itself with a progeny which was pursued by the parent insect the year before.

We are told by Galen, that on opening a goat big with young, he found one of the young ones alive, which he hastily snatched up, and took it into a room where there were various vessels severally fitted for the purpose, with wine, oil, honey, milk, grains and fruits. The little kid first rose upon its feet and walked; then shook itself, and scratched its side with one of its hoofs: it next smelt alternately at all the dishes before it, and at last fixed upon and licked up the milk In this case the sense of smell went distinctly in aid of the instinctive search after food, and determined the particular kind; so that the instinct and the sensation cooperated. [*Good.*

Miraculous Preservation of Life by a Dog.

The Manchester Chronicle states, that as some children were playing on the banks of a stream near Welsh Pool, about the 20th ult. two of them fell in, who must have perished but for the sagacity of a dog belonging to a factory near by, who jumped in and laid hold of the child nearest to him, which he brought towards the shore. The noble animal, as gifted with an extraordinary degree of sagacity under such an emergency, as soon as he felt a footing for himself although in the water, let go his hold from the child, and immediately rushed in to the rescue of the other. which he providentially accomplished, while one of the playmates of the children succeeded in drawing the first child from the place where the dog left it. If he had not at the moment rushed in the second time, the other child would have been drowned, for the poor little thing was exhausted by its struggles, and bad sunk and risen to the surface of the water the third time.

COTTON DUCK.

A number of publications which have lately appeared, speak in very favourable terms of cotton canvass for shipping. The annexed certificates are copied from Niles' Register.

Pensacola Bay, Feb. 5th, 1827.

Sir,—In reply to your letter of 21st December, which I this day received, immediately on my arrival here—I had only a main-top sail of cotton that was bent at Norfolk in March last, and had been in constant use nearly the whole time since. My ship has been actually at sea 240 days, and sailed 18.587 miles in the above period, including the hurricane months, which were excessively boisterous, and this ship requiring the main-top sail, it was always carried as long as practicable.

The injuries which top-sails sustain from frequent reeling, &c. is well known to the navy commissioners. I have had the abovementioned top sail middle-stitched, to strengthen the *sewing*, which had given way in several places, and I now pronounce it as good as it ever was, having this day examined it minutely, to enable me to make this report. Cotton sails hold more wind, are much more pliable and easily handled, and upon the whole I think highly of them for square sails.

J. WILKINSON.

Baltimore, March 22, 1828.

We the undersigned, owners, masters, and sailmakers of the city of Baltimore, certify that the ship Peruvian, of this port, was completely clothed with cotton duck, manufactured by Chas. Crook, jr. of Baltimore; and that it is now upwards of three years in service, during which time the Peruvian has been three voyages to the Pacific ocean and back to this port, notwithstanding it is our unanimous opinion that said clothing is quite sufficient for a voyage to South America.

MATTHEW KELLY,
THOMAS A. LANE,
EDW'D HOLBROOK,
WILLIAM GRAY,
B. MEZICK.

All the other statements correspond with these. But these are sufficient to establish the value of this interesting manufacture. We believe that it will do more for the south, than the people of that section of our country *can* suffer from the much abused tariff. Our ships will soon be generally clothed with the products of our own fields and our own workshops, and the "bits of striped bunting" will not float less gracefully in the air on account of either.

Profits of a Vineyard.

Col. Aldum, near Georgetown, D. C. from two and a half acres, in 1826, cleared between eleven and twelve hundred dollars; and, on an average of ten years, after the three first, has found the vine to yield four hundred gallons to the acre. [*N. Y. Far.*

NEWSPAPERS

Published in 1775 and 1810--and Newspapers and Periodicals in the U. S. in 1828.

STATES.	Number in the year 1775.	Number in the year 1810.	Number in the year 1828.
Maine			29
Massachusetts	7	32	78
New Hampshire	1	12	17
Vermont		14	21
Rhode Island	2	6	11
Connecticut	4	11	26
New York	4	66	161
New Jersey		8	22
Pennsylvania	9	71	185
Delaware		2	4
Maryland	2	21	32
Dis. of Columbia		6	9
Virginia	2	23	34
North Carolina	2	10	15
South Carolina	3	10	16
Georgia	1	13	13
Florida		1	2
Alabama			16
Mississippi		4	6
Louisiana		10	9
Tennessee		6	8
Kentucky		17	23
Ohio		14	66
Indiana			17
Michigan			2
Illinois			4
Missouri			5
Arkansas			1
Cherokee Nation			1
	37	358	827

THE FARMER.

BALTIMORE, FRIDAY, JULY 25, 1828.

Berkeley Waters for Rheumatism.

One of the editor's sons has been visited for two or three years, especially in the *hottest weather*, with violent attacks of *Rheumatism.* He has been persuaded to send him to Berkeley, where his friends aver they have seen the most desperate cases cured by bathing in the waters of that celebrated spring, and he has sent him with great confidence of most comfortable accommodation to Thomas' hotel, Bath, Morgan county, formerly Berkeley, Virginia.

The proprietor of this establishment informs his friends and the public, that he has taken the house formerly kept by Mrs. Abbernatha, where he intends keeping a boarding house; he hopes his exertions to please will give general *satisfaction.*

Travellers can take the stage for Hancock, where they can procure hacks for these springs.

He has also procured Col. *Gustine's* house and good stables.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.00 *a* 5.00—fine red, 5 00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3 00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* [illegible].00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-st 4.62½ *a* 4.75; city mills, 4.37½ *a* 4.50; Susquehanna, 4.37½ *a* 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat, .85 *a* .90—best white wheat, .90 *a* 1.05—ordinary to good, .75 *a* .80--Corn, 33 *a* .35—Rye, .45—Oats, .20 *a* .22—Beans, 1.50—Peas, 60 *a* .75—Clover Seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2 25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* 50 pr. lb —Barley, 60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* 10½—Whiskey, hhds 1st proof, 21 *a* .21½—bbls. .23 *a* .24--Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* 22—three-quarter, .25 *a* .30—full do. .30 *a* 50, accord'g to qual.—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—Bacon, hams, Balt cured, .10; do Eastern Shore, 12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

For the last two days there has been but little demand for corn. Sales were made yesterday at 34 *a* 35 cts.; and one sale this morning at 33 cts.

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Sheep and Wool, Extracts from Luccock's Essay—On the Curing of Hay and Fodder—To prevent River Banks from Washing—On the weight of Veals and Hams—Essay on the Means of preventing the Destruction, by Worms and Insects, of Plums and other Fruit Trees—Thorns for Hedges New mode of killing Caterpillars, by shooting—To Prevent the Destruction of Bees by the Bee-Miller—Essay on the Rafts in the Red and Atchafalaya Rivers—On the Moral Education of Children—Maxims—Pedigrees of Thorough bred Horses, continued—Pedigrees of Figure and Union—True Pedigree of Syme's Wildair—On the Instinct of Animals—Miraculous Preservation of Life by a Dog—Cotton Duck—Profits of a Vineyard—Newspapers in the United States—Editorial—Prices Current.

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AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

The naturalist has commonly classed the tribe of sheep by their fleece, the colour of the face and legs, by the structure of the ears, the horns, the tail and the rump. The grazier classes them precisely in the same manner, but instead of using the term species, he considers each class as a distinct "breed;" and, in order to distinguish the varieties which he perceives, he calls them "cross breeds." The term, it must be confessed, arises naturally from his peculiar pursuits, and is by no means improper. The woolstapler, on the other hand, whose attention is confined chiefly to the fleece, has his peculiar arrangement; he distinguishes the hairy sheep, that which yields wool mingled with hair, and the pure wool-bearing animal. The first of these classes is evidently unconnected with his profession. In the coats of the two last he observes numberless dissimilarities, and arranges them according to the colour of the pile, the length of the staple, the soil upon which the fleece was produced, and the country where it was shorn. These are the principal points to which he attends. The last is of no consequence, except so far as it is connected with his knowledge of the district. It then serves to give him a general idea of the wool which happens to be the subject of discourse. Hence he most commonly connects with his description of the fleece, the name of the kingdom or the county where it was grown. He speaks of the wool of Spain, of Portugal, or of Germany; of the fleeces of Sussex, of Norfolk, of Shropshire, of Northumberland or of Scotland; and conveys to the ear of another stapler, by the epithet which he uses, an idea of the properties of the wool, as correct as the graziers do of sheep when they speak to each other of the Norfolk, the Ryeland, the Cheviot, or the Dishley breeds.

The division of fleeces into distinct classes, which the woolstapler so constantly adopts, and finds so useful in his business, is intimately connected with a fact in natural history, which has been long since established beyond all possibility of doubt; that the sheep is so constituted as to yield a fleece peculiarly appropriated to its distinct breed; and that at every annual return of the season for shearing, the same animal, under the same circumstances, will afford a similar kind of wool. If, therefore, the colour of the pile was once white, it will be found so again; if the staple was long, it will return in the same form: if it was coarse and hairy, it will be so still. A temporary and partial alteration may be produced in the fleece, by circumstances which we shall notice hereafter; but there is no reason to suppose that in any case the constitution of the animal is so changed, as to yield a kind of wool permanently different from that which it once afforded. The operation of slighter causes upon wool is constantly visible, and their effects have been noticed with some degree of precision; but the consequences which some of the more violent ones produce, such as affect very suddenly the temperature to which sheep are exposed, their nourishment and their health, have been suffered to pass unrecorded and perhaps too often unobserved. The degree of information we at present possess, induces us to attribute the slight variation, which we perceive in the fleeces of the same flock at different seasons of shearing them, not to the constitution of the animal, or to any change which takes place in its characteristic peculiarities, but to the influence of external circumstances, which are perpetually varying, and seldom, if ever, change in a similar manner, throughout two succeeding years. If the fact, that the fleeces which the sheep produces are similar to each other, be well established, and if it be not in the power of the less violent causes to produce a material difference in them; then nothing can more strongly evince how important it is for the wool grower to mark well the peculiarities of his flock; to place no dependence upon accidental and external circumstances for the production of good fleeces, but to rely entirely, and with confidence upon the properties with which nature has endowed his sheep.

The perpetuity of animal properties is scarcely any where more strikingly exhibited, than in the certainty and regularity with which the parent sheep convey to their offspring their own distinguishing characteristics. It is easy to trace the features, and to observe the disposition and the fleece of both its progenitors in the lamb, but so blended and softened as to produce a character distinctly its own. What an amazing field for the exercise of human genius and assiduity has the Great Disposer of nature opened by this arrangement! In this, as in most other instances, he has committed to man's own hands the management of his comforts. By this means the shepherd is enabled to combine the peculiarities of his flock with those of another, and to improve them both. It was upon this circumstance that the great Bakewell seized, and by means of it produced a race of sheep which will convey his name to future generations. His example diffused a spirit of experimental enterprise among his brethren, who have acted upon his ideas with the most happy success, and promises to extend its influence until the first of human arts has attained a degree of perfection which it is not possible to describe. It is upon this combination of the parents' properties in their offspring that we depend for the future improvement of the British fleece, and hope that those to whose superintendance it is entrusted, will not be satisfied until every individual quadruped, which produces wool, shall possess its full share of utility.

The improvement of wool, it should ever be recollected, consists in rendering it better adapted to manufactures. Alterations, which fail of this grand purpose, if produced by design, are trifling and contemptible. If they render it less susceptible of an application to useful purposes, they, and the abettors of them, deserve the severe reprehension of an enlightened agriculturist, who declares that "the debasement of the fleece is an act of treason against the state." But manufactures are so very changeable, and their demand for the raw material has been so uncertain in past ages, that the grazier ought to observe, with the keen eye of a statesman, the publick and the domestic occurrences of the moment, if he would produce from the backs of his sheep a commodity, which shall possess the highest intrinsic value, and be most assiduously sought after.

It would be folly to attempt the description of a sheep which would yield, in every country, the most valuable fleece. The circumstances of nations differ so widely from each other, and their manners, their clothing, and their manufactures are so very various, that the wool which is of the utmost value with one people, is very lightly esteemed amongst others. The agricultural system adopted in Bucharia, an extensive country in Asia, where sheep are cultivated with as much attention as in many parts of Europe, furnishes one of the most striking illustrations of this remark. In these western parts of the old world, the preference is given to white fleeces, and that for reasons which are deemed the most weighty; but there black sheep are more esteemed, because they furnish a kind of fur which is much worn, and sold for a great price among the neighbouring people. In Europe, we rear them on account of the carcass; but in that part of Asia they are kept for the sake of the skin. Here the older sheep are slaughtered, and the lambs are nourished to supply their places; but there the lambs are destroyed, and the ewes are preserved so long as they are productive. Among us a woolly coat is an object of the first importance, but the inhabitants of that region are solicitous that their flocks should be distinguished for their covering of soft and silky hair. So greatly do nations differ in their ideas of beauty, utility, and intrinsic value! In a country like England, therefore, whose woollen manufactures are established, and where many of the articles are destined to a foreign market, it behoves the inhabitants to observe the taste and the prejudices of every people, to suit their goods to the ideas of excellence which their customers entertain, and to push their trade to the utmost extent. While endeavouring to attain these grand objects, the manufacturer calls perpetually upon the wool grower to assist him by adopting those breeds of sheep which yield a fleece the best adapted to the purpose. He entreats him not to be so prejudiced to old families, and to ancient modes of management, like his ancestors, as to submit with reluctance to the constant and imperious influence of manufactures. He solicits him not to counteract the efforts of the loom, but to anticipate as much as possible its demands. He assures the breeders of sheep that their interests and his own run precisely in the same direction; that fabrics well supported and abundantly supplied with the raw material have the best chance of maintaining their ground, that then they afford the largest return for capital and labour and that the profits are always divided between them both. He entreats them to recollect that he has in no case deserted his coadjutors but with the utmost regret; that it has always been in consequence of circumstances, over which neither he nor they had any control, and that he has been the first to point out to them the new kind of wool which they ought to cultivate.

The causes which produce such an astonishing variety in fleeces, are in a great measure unknown to us; and when attributed to the constitution of the animal, it is traced to a source calculated to convince the world of our ignorance. But as the effects which proceed from the influences of blood are always uniform, it affords a basis upon which the sheep-master may found his conduct with the utmost confidence, and enables him to foretell the result of combinations in the breeding system with wonderful precision. Yet how it is that the colour of one fleece differs so totally from that of another; that one portion of an animal should produce an opaque and brittle hair, while another yields a transparent and elastic wool; why in some breeds the fleece should be confined to the carcass, and in others envelope almost the whole animal; why some families of sheep produce white wool, although their faces and legs are black; and whence it is that we never find the converse of this, a race of sheep with white faces and legs, producing black fleeces, we cannot tell. Our ignorance upon these subjects is universal and complete; and, perhaps, like many questions of a similar kind, which may be very easily asked, both with respect to sheep and quadrupeds of a different description, all inquiries instituted with a view of removing it, must long remain unanswered, notwithstanding the illustrations of the learned, and the practical observations of the most attentive grazier. The breed of spotted sheep, so common in the parks of our nobility, is very different from that which is intended when we speak of one with white faces and legs producing a black fleece. In the vast variety, which the characteristic marks of this tribe assume in their distribution over the body of the sheep, and in their dimensions, it is possible perhaps to find an individual whose fleece is black, and its face and limbs entirely colourless; yet we have no reason to think that there exists a breed of this description, a race which has communicated the peculiarity from the parents to the offspring through a number of succeeding generations.

There is no other breed of sheep in which nature distributes the colours so capriciously as in the spotted one. Most of these, which yield a fleece of a hue different from that of their extremities, exhibit a tendency to produce lambs of a darker cast than themselves; so that the flock, if left without the superintending care of its possessor, would in a few generations become entirely black. This remark has been made by some of the most intelligent breeders. It is deduced from their intimate knowledge of the animal, and from the care and watchfulness which they find absolutely necessary in order to preserve the beauteous whiteness of its fleece. Had they recollected the early history of the sheep, when it had departed but little from the undomesticated state, had the facts which have been mentioned in the former part of this section recurred to their memory, it is probable that the circumstance would not have surprised them.—They would have pronounced, with less hesitation, their opinion, "that nature in this instance was only endeavouring to return to that course from which the genius and industry of man had long compelled her to deviate." So pertinaciously does she seek this ancient path, as sometimes to produce even from unstained mates, in whose formation and fleeces culture has produced its most complete and boasted alterations, a sooty coloured lamb, as if to remind us that though constrained in these well bred flocks to wear a fashionable garb, she is ready on every relaxation of discipline to exchange it for a more loose and humble attire. The flocks, also, with black and dingy faces, in whose fleeces the tendency to degenerate has been most frequently noticed, and whence the conclusion was drawn that the original breeds were entirely of a dusky hue, are very widely scattered over the surface of the globe. Even in countries of the highest polish, and where the utmost attention has been given to their wool, they range almost without a variety, and evince how much may still be expected in the cultivation of an animal which both feeds and clothes us. The breed which is distinguished by the whiteness of its face, is confined within much narrower limits, abounds most in the richer districts, is generally found both at home and abroad to produce the longer wools, and even in countries where it ranges over wide extended hills, is commonly deemed the most tender animal.

But the peculiarities of blood are connected not only with the colour of the fleece; they have also a most material influence upon the structure of the pile. The filaments, which different breeds of sheep produce, are much more various in their nature than those who are not accustomed to observe them will readily conceive. When examined with the assistance of the microscope, the only mode of becoming acquainted with the minuter properties of wool, the filaments of white fleeces appear perfectly transparent and colourless; they bear a very great resemblance to shreds of nicely spun glass. Some very good judges of wool have spoken of it, as though they doubted the correctness of this description, and seem to consider it as an opaque, but polished substance; yet it appears to be indubitably transparent, by the effect which it produces upon the rays of light when thrown through it from a good mirror to the lens of the instrument. It refracts them agreeably to the laws of transparent substances, and precisely with the same appearances as the crystallization of salts by means of the solar microscope. But the hairy parts of the staple, when seen through similar instruments, appear perfectly opaque; where they change to wool, they become clear and transpicuous; another circumstance, if an additional one were wanting, to convince us that the coat of the sheep does not differ very essentially from that of other quadrupeds. The pile of a black sheep, although it seems to possess every quality of wool when examined by an unassisted eye, is, nevertheless, destitute of that clearness which the combination of lenses exhibits. Its opacity, however, is not always uniform. I have sometimes seen a black filament, studded with white transparent spots dispersed through its whole length; which shows, most evidently, that its opacity and colour is rather the effect of the arrangement in the particles composing the pile, than any particular secretion formed by the skin of the animal.—The surface of black filaments appears, so far as can be discerned, smooth and uniform, like that of whiter ones, and their outlines as well defined, so that the colour is probably owing to something distinct from that arrangement of surface which absorbs or dissipates the light. The transparency of wool, which has been found most perfect in the best kind of fleeces, seems to be connected with the breed of the sheep, and is therefore an object worthy of the wool grower's attention.

There are some other breeds of sheep which yield a wool remarkable for its brilliancy; although the pile be not perfectly opaque, yet the surface of it seems to possess a very fine polish, like that of a metalic needle; and the lustre with which it reflects the rays of light, has given it among workmen the appropriate appellation of silvery haired wool. This is most frequently found upon the backs of sheep whose pile is remarkably long and hairy. It is not so frequent in England as it formerly was, and the farmer will do well if he banish it entirely. There are still other breeds, which afford fleeces whose pile is observable for a wan and sickly appearance destitute of lustre and almost without elasticity; and some, both in their general appearance and the structure of the filament, bear a resemblance to unwrought cotton. In the Vigonian wools we meet with a staple nearly opaque, but remarkable for its smooth and silky texture.

The particular shape of the filament is most probably determined by that of the pore in the skin, through which it is protruded. In some families of sheep we observe the pile perfectly round and even, like a very nicely drawn wire; and in others it is uniformly flat and smooth, like a small bar of finely polished steel. This difference is frequently discoverable by inspection alone, but becomes more obvious if one end of the filament be held fast while the other is rolled round its own axis betwixt the fingers. It then reflects the rays of light if it be flat in the same way that the metallic shreds, which we obtain from gold and silver lace, do when they are treated in a similar manner, and concerning whose shape we can have no reasonable doubt.—This variety of arrangement which we observe in the particles composing the filaments peculiar to different breeds of sheep, and the laws by which it is regulated, are subjects not entirely unworthy of their notice who have time and inclination to pursue them, nor of his whose object is to produce wool in its most perfect form.

(To be continued)

(From Bordley's Husbandry.)

SHEEP.

The universal food for sheep in England is, in *summer*, common grass and clover; in *winter*, turnips for winter feed, and from turnips to vetches in the spring: hay, only when turnips fail. Of *stock sheep*, 100 require 5 acres of turnips, and 15 acres of clover. Good inclosed pasture will carry six sheep to an acre. 19 An 295. 298.—A ton of hay a day was eaten by 700 sheep; which gave to each 3 2 10 lb a day, and was rather scanty. "Cabbages are better for sheep than turnips two to one."—After the sheep are a little accustomed to their stalls, they thrive well. They are there fed 3 or 4 times a day, and have clean litter. 18 An. 105. 111.—In America, plant a cabbage in the step between every two hills of maize, the partial shade may be favorable to them. It is said that cauliflowers succeed better when planted amongst maize, than when in a garden, *gooseberries* also require some shade. Thus they are raised without labour; for the maize must be horse hoed. What would be the difference between letting the plants grow into cabbages from the seeds, without removal, and transplanting as usual?

TURNIPS.

In Kent's Hints, page 128, is the following on turnips.—In crops they answer three great purposes; to *clean the ground: support live stock*, a vast deal: and *prepare for other crops*; particularly for barley and clover, or grass-seeds. The *turnip crop* is the Norfolkman's sheet anchor; and he spares it no pains. The stubble of wheat, barley, or oats, is preferred for bringing on turnips. They plough very shallow; so as to skim off the rough surface only, some time before Christmas. In the following *March* it is well harrowed (their soil is a sandy loam) and then is cross ploughed to its *full depth*. In *May*, it is ploughed again, the same depth: and if dry weather and the soil stiff, immediately *harrow* after this ploughing. By the *first of June*, it ought to be perfectly clean. Now, 10 good cart loads of *manure* are laid on an acre, regularly spread, and ploughed in quite *fresh*, half the depth of the other ploughing.—It thus is left till about the 21*st of June*; and then is well *harrowed*, to blend the soil and manure together.—It is then *ploughed* to its *full depth*, and harrowed, once only, the way it is ploughed.—The seed is then immediately sown, on the *fresh* earth;[*] *not even waiting for the ploughing a second ridge*. A quart of seed an acre is sown. The seed is *harrowed in* twice, the same way the ground was ploughed. The *harrow* is short tined, and the lighter the better.

The nicest part of the turnip husbandry now remains to be observed: It is *hoing;* without which *all* the former labour is *thrown away*.—When the plants cover *three inches* in diameter, *hoe* them with a 10 inch hoe; and set them at 15 inches apart; without regard to the apparent health in the choice of those left. About 10 or at most 14 days after the first hoing, the ground is *hoed* a second time, so as to *stir the mould* effectually between the plants, and to check weeds. About 14 to 20 days after the 29th September, the turnips are fit for consumption, and so to April, unless the frost injures them.—Where the land is wet the *whole* are *drawn*, and fed in cribs. On *light dry land*, every other ridge is drawn.

He adds, 20 acres of a good crop of turnips *fatten* 15 or 16 bullocks, and *support* 10 followers or store cattle for 25 weeks; or of sheep, as 8 to one bullock. But the greatest advantage is in *cleaning*, *meliorating* and *preparing* the soil for other crops.

To save turnips in the field, they sink some beds in the ground where they grew, about two feet deep, of a considerable width, and lay 5 or 6 layers of turnips in them, one upon another, with a little *fresh earth* between every two layers, and cover the top over with straw, to keep out the frost. Or pile them up in small stacks, with the greens outward, and a little clean straw between every two layers; and lastly cover or skreen them with wattles lined with straw.[†]

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[*] In Maryland, turnip seed is usually sown a full month later than this.

[†] At Wye, with intention to try a new mode, my turnips were sown in broad-cast, thick. A plough having a narrow fin without its mould board, was run through the young plants, carefully, for leaving them on a narrow slips of earth. Handhoes followed, working across

POWER—DRAUGHT.

The 16 An. 562, says *cars with one horse* are preferred; and that they carry 160 large bricks, of 14lb. equal to 2240lb. These cars are about 5 feet square, and 1 foot deep; containing 25 feet: 27 f. a cubic yard is a load of earth. The *wheels two feet* diameter, run *under* the car, as in Ireland.[*]

The 18 An 179, says, one-horse carts prove much preferable for all works of husbandry: and the form of such a cart, *with an ox* in thills and gears, and bridled, is given. This cart is 5 feet long: 3 7-12 broad: 2 deep; equal to 36 cubic feet.

The strength of a common *man*, walking *horizontally*, with his body inclining forwards, is said to be equal to 27lb. If he walks backwards the force is said to be greater in pulling backward; and it is said to be known that a horse draws *horizontally* as much as seven men; that consequently his strength is equal to 189lb. when drawing *horizontally*. Yet in *ascending*, three men laden with 100lb. each, will go up a pretty steep hill with more ease and expedition, than a horse laden with 300lb.

I have often seen about a tun weight drawn, and sometimes up a trying hill as from Market street wharf, Philadelphia, to Front street, by *one horse in a dray* having wheels of three feet diameter. On level ground, with such low wheels, his whole power is exerted to advantage; *upward*, from the centre of the axis which is below his point of draught. Horizontal draught, has but 189lb. of power to be added to some portion of the horse's weight. But in drawing upward it is with an increased power. Contrary to common reasoning, a horse draws more in a dray having three feet wheels than in a cart having five feet wheels, or else I must strangely be mistaken in my judgment of what I have seen and concluded were *facts*. The line of draught, *from the axis* of a three feet wheel, is *elevated;* which gives the horse a *lifting* purchase, with the aid of his legs, and better foothold pressing more directly on the ground: but when the wheel is five feet high, the *draft* is in a line nearly horizontal, and the horse pulls to disadvantage *with a horizontal exertion of the footlock;* which is very inferior to the power exerted by the *foot and leg*, when drawing *upward* they press more *directly on the ground*.

SWAMPS.

I have read of a swamp, of which meadow could not be made; and, being a disagreeable object, large deep ditches were dug, and the earth thrown up into little islands; which were planted with willows, and formed beautiful clumps of trees, here and there; so that nothing was seen but these trees, and various peeps of water. The ditches answered for fishponds.

Lombardy poplar is planted about habitations in America for ornament: but an Italian gentleman says, in Italy it is sawed at mills whilst *green* into boards to ¼ ½ to one inch thick, and into plank 2 to 3 inches thick; and is greatly applied to making packages for merchandize. Nails are not apt to draw in these packages, the boards whereof are thin; and the wood being tender is easily cut into thin boards with handsaws. In 20 years their trunks, he adds, grow to be 2 feet diameter and 30 long. Boxes of it made strong for the use of vineyards last there 30 or 40 years; which induces the expectation that they may last long in *fence-rails* or logs. As *fuel* he says it makes a much stronger fire than the willow. The weeping willow is a singular and valuable ornament. Of other willows and osiers, the best adapted to making baskets, hurdles, tool handles, &c. no husbandman ought to be without a permanent stock in full growth. For the more general, extensive and important purposes, the Larch (*Pinus Larix, Lin.*) must have the first attention of landed men. See Doctor *Anderson's* 3d volume of Essays on Husbandry, for a full and satisfactory account of it, and of the extensive propagation of it in Scotland; with its useful and durable qualities; and its very quick growth, so much wanted in the oak.

Mr. Young speaks of fish-ponds, and of four ponds, an acre each, one above another, on a stream, which turned a mill below the ponds. 19 An. 400.

HORTICULTURE.

KITCHEN GARDEN—AUGUST.

Several crops are to be sowed this month for winter and the next spring and early summer crops; as cabbages, cauliflowers, onions, carrots, spinach, and some principal crops planted for late autumn and winter supplies. In this month, digging vacant ground is required for sowing and planting several full crops. All new planted articles must be watered, and diligent attention paid to the destruction of the weeds before they grow large, or come to seed.

Asparagus, which will be now all run to seed, must be kept clean from weeds, which is all the culture they will require till October or November, then to have their winter dressing.

Sow cauliflower-seed about the latter end of the month, to stand the winter, in frames, hand-glasses, and warm borders, for the early and general summer crop, next year; and for which remark the above time, for if the seed is sown earlier, they will button or run in winter; and if later, they will not attain due strength before that season. If the weather is dry, occasionally water them, and let them be shaded from the mid-day sun.

Earth up the former planted crops of celery, repeating it every week according as the plants advance in growth. Do it moderately on both sides the rows, but be careful not to clog up the hearts

Cucumbers in frames, &c. may now be fully exposed by removing the glasses. Picklers, or these in the open ground, will now be in full perfection. Gather those for pickling while young two or three times a week. While the weather continues hot, daily water the plants.

In dry weather hoe various crops in rows, to kill weeds, loosening the earth about, and drawing some of the stems of the plants, to encourage their growth.

Sow cos, cabbage, Cilicia, and brown Dutch lettuces, in the beginning and middle of the month; and towards the latter end for successional crops the same autumn, and for winter supply, and to stand the winter for early spring and summer use. Plant and thin lettuces of former sowings a foot distance.

Onions being now full bulbed, and come to their mature growth, should be pulled up in dry weather, and spread in the full sun to dry and harden, for a week or a fortnight, frequently turning them to ripen and harden equally for keeping. Then clear them from the gross part of the stalks and leaves, bottom fibres, any loose outer skins, earth, &c. and then house them on a dry day.

Sow winter onions both of the common bulbing and Welsh kinds, for the main crops to stand the winter to draw young and green, some for use in that season, but principally for spring supply; and some of the common onions also to stand for early bulbing in summer. The common onion is mildest to eat; but more liable to be cut off by the frost than the Welch onion. This never bulbs, and is of a stronger hot taste than the other, but so hardy as to stand the severest frost.

Potatoes may now be dug up for use in larger supplies than last month, but principally only as wanted, for they will not yet keep good long, from their not having attained their full growth.

Sow an autumn crop of radishes, both of the common short top and salmon kind. Likewise turnip-radish, both of the small white, and the red, for autumn, and the principal crop of black Spanish for winter; and hoe the last sown to six inches distance.

Sow the prickly-seeded, or triangular-leaved spinach, for the main winter crop, and for next spring, that sort being the hardest to stand the winter. Sow some in the beginning, but none towards the latter end of the month, each in dry-lying rich ground exposed to the winter sun.

Hoe the last sowed turnips eight inches distant in the garden crop; but large sorts, in fields or extensive grounds, must be thinned ten or twelve inches or more.

Be particularly attentive to gather all seed that are ripe before they disseminate. Many sorts will now be in perfection; you must therefore cut or pull up the stalks, bearing the seed, and lay them in the sun to dry, &c. as directed in July.

SILK WORMS.

Jno. S. Skinner, Esq. *Georgia, 14th July*, 1828.

Dear Sir:—The silk worm eggs you had the politeness to send me last spring, were not altogether fortunate, some of them having hatched on their passage here, in consequence of the unseasonable warm weather which prevailed during that time, and the young worms having lost their lives, either from want of food or the rough handling of the mail carrier, and indeed some of them that hatched after they came to hand, perished for want of food, the severe frost which occurred about the time having killed all of the leaves of the mulberry tree, except a very few that were in sheltered places.

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the rows, and cutting near a foot width of the plants quite up; the hoers stopping occasionally to thin the clusters of turnips left by the hoes. A double mould board plough afterwards run through the intervals, heaves up the earth on each side and leaves the plants on clean ridges. Advantageous as this proved, I could not procure it to be repeated more than once more, a few years afterwards. Overseers are as fixed to old habits as the negroes under them; and I was much abroad on other business. I have indeed always found the negroes better disposed to execute my designs, than the overseers, who invariably are attentive and ingenious in taking short cuts for sluring over all work, to soon get rid of it and go a frolicking. I usually sowed near the end of July though I felt disposed to break through the practice; and sow a *little later*, for saving them before they were old in growth when they incline to be open and spongy, and therefore do not keep so well as younger turnips, close and in full vigor. In that country turnips are but little hoed and that slovenly: and to thin the plants the country people think would be destroying what they had done. They count the turnips by the *number* of plants, rather than by the *quantity* of the roots.

Turnips in rows, having 12 or 14 inch intervals. *Every other row taken up* and saved, would leave intervals 24 to 28 inches wide. Cover the remaining turnips with long dung: then in November, before the frost sets in, dip deep a double mould board plough, and heave the earth on the turnips, to stand the winter. Make the experiment. Such a plough is highly valuable on many occasions. It especially saves 2 or 3 bouts in clearing out, when ploughing maize. Of *potatoes* every other row taken up would leave three feet intervals between the rows of remaining potatoes. The haulm cut off and laid on these potatoes, may then be covered by the earth heaped on them by a stout double mould board plough; for keeping this half of the crop through the winter. It may be first tried in a few rows.

[*] I directed a cart to be made on the principles of Sharp's wagons on rollers. The wheels of this cart, or rather the *rollers* were two feet diameter, and 16 inches tread, sawed out of oak. They performed admirably, except when running over old cornhills: they then jumped continually. With 4 oxen it carried 120 bushels of wheat, 7000lb easily. The rollers were under the body; and this was nearly square with equal sides. Carts are used with *one ox*, instead of a horse.

Such destruction of vegetation by frost, I have never known before, for most of the corn in this state was cut down, and it was found necessary to plough up much of it and plant the ground anew. I am of opinion, therefore, that the experimental cultivators of the silk worm, should not yet be discouraged since it appears the worm was not borne harder on by the inclement spring than corn was, the most hardy vegetable we have of the annual tribe. During the progress of the worms that I was able to feed, their growth was not so rapid as I had expected; disease was not unfrequent, and some deaths occurred, doubtless owing to the variableness of the weather. I was from home for ten days before the worms commenced spinning, and until they were coming from out of their cocoons in the form of butterflies, soon after which they laid a full complement of eggs, which I had put away in a drawer of a table in my dwelling, and in a few days after, on examination of them, I found they were hatching, I then removed them to a place I thought would be a favourable one for their hatching, but from some cause which I cannot account for, not more than one tenth of them hatched, I have however thought the eggs may have been injured, by the common black fly, which seemed to feed on them in great numbers. The little worms the moment they escaped from their confinement, commenced their attacks on the mulberry leaves, with apparent greedy appetites, which they continued till they commenced spinning, with an increased consumption of the mulberry leaves, proportionate with their growth. This generation was almost wholly free from disease, and but one death occurred. I was from home for some days before, and during the time they were spinning, having left them in the care of a black man, who had the management of them from the time of their hatching, who informed me, they were much inclined to wander about the room in which they had been reared, in search of a favourable place to spin, and not more than three fourths of them enclosed themselves in cocoons, the residue of them spun their silk, (on faggots placed among them.) in the manner of spiders' webs. I would esteem it obliging in any of your correspondents, who is acquainted with the cultivation of the silk worm, if they will point out any way, by which the silk worm can be made to spin their silk in cocoon form, and also to say whether the silk spun in the manner of the spiders' web is of any value, and if so, how it should be prepared for market.

I have now I presume from worms of the second generation this season, about 200,000 eggs, which I have put away in the hope that I shall be able to keep them in good preservation till the next spring.

Our summers here, (say about latitude 33) is sufficiently long, to rear three generations of the silk worm in one season, and if we are to judge from the extent the figure has been carried in the cultivation of cotton, to the almost total ruin of the larger part of the best soil of this state, we may reasonably expect (if the silk worm is cultivated extensively here,) that three generations will be reared, if it should not be found that keeping the mulberry tree stript of its leaves is injurious to it.

The little experience that these worms have given me, (and this is all that I have in the cultivation of the silk worm,) has not prepared me to offer any positive opinion, whether extensive attention should be given to them in the southern states, I may however say that I am inclined to the opinion, that they may under judicious management, be found more productive of profit than any thing else, (except the sugar cane, south of latitude thirty-three,) that can be extensively attended to. Should I have it in my power next year to carry my experiment farther, (and I feel much disposed to do so,) I will endeavour to give you an account of the result.

AGRICOLA.

PLUMS.

Mr. Editor,

I have thought that some remarks, additional to those which I made in your paper of last week, on this fine fruit, might have the effect of inducing those gentlemen practically acquainted with the subject, to give the public the details of their successful practice. My information is, for the most part, theoretical, though founded, in some degree, on observation. If, therefore, not entirely useless, it is much inferior to what they can communicate.

The mode pursued by your correspondent "H. B.", of burying the fruit that is punctured and falls, cannot be so efficacious as paving; for, in many instances, the inhumation, so far from being fatal, would only assist the insect's natural propensity to hide itself in the ground.

The plum tree is said to flourish in almost any soil where other fruit trees will grow. I have hardly ever seen a young and uninjured tree of that sort, whether in town or in the country, that was not healthy-looking and vigorous, although its fruit might never come to perfection. There is nothing in our climate or soil, therefore, to prevent its thriving; and all that remains for us, is to devise some means of protecting its fruit.

If I were making a collection of apricot, plum, and nectarine trees, (as I am, indeed,) whether in the country or in town, I should plant them near the house, for greater security; and if possible in the yard, that I might have a brick pavement under and around them. I should also place them much nearer together than trees stand in an orchard; that is, 12 or 10 feet, or even, in some cases, 8 or 6 feet; and, although I should endeavour to prevent them from growing very large, I would permit them to form tall stems. In such an arrangement, there would be several advantages. You might have a greater number and variety of trees in a smaller space; there would not be required so much paving; they would be more easily superintended, and would shelter each other from the excessive heat of the sun; and the fruit would not be so exposed to being pilfered.

Another method which I have begun to carry into effect, is to cultivate these sorts of fruit on *trellises*, or, as they are usually called *espaliers*, standing in the open field or garden, where they can be watched, and facing to the south. It is not of much importance, however, how they front, for the open trellis-work admits the air and light to penetrate and pass in every direction, and the sun shines upon it from all its aspects. In this particular, the simple espalier is preferable to the *wall*, which, in our climate, is generally too hot and close. These espaliers may be arranged in rows of any length, one behind the other, twenty or twenty-five feet apart; and the interval may be devoted to the raising of various vegetables. If any of your correspondents should desire it, I will hereafter give you the details of construction accompanied by a drawing. The espalier need not be confined to the fruits specified above; but will no doubt answer very well, in some places, for the peach, the pear, and even the fig. For the vine they are commonly used, and are the best way of cultivating grapes for the table.

The principal advantages of this mode are these: that it occupies less room; that you may pave along under the trees at less expense; that, as they are never suffered to grow higher than five or six feet, or seven or eight at the utmost, every part of them can be easily reached, to pluck off the fruit, to cut away dead and broken branches, to remove and destroy any insects that may fix upon them; and that they may be covered in the late frosts and cold nights of the spring. Trees of the kind of which we are now speaking, do not require protection in the winter; and hardly any fruit that does, is worth cultivating on a large scale: but there is much danger to be apprehended, even to the hardiest plants, from late frosts in the spring, when they are in blossom, or their fruit is tender, or their buds are just expanding; and a person who has not witnessed it, would be surprised to see how slight a protection will effectually secure them. A mat, thrown loosely over the top of the trellis, and hanging to the ground; or even leafed branches set up against the tree, will generally suffice. If you have water at a proper elevation, it is also very easy to irrigate trees or vines planted in this way.

For the culture and training of fruit trees on trellises, ample directions are given by Forsyth and McMahon, each of whose treatises every man should possess who wishes to have good fruit.

In selecting a site for an espalier orchard, a situation would be the best, I think, in which the trees should be exposed to the sun only until about three o'clock in the afternoon; for I am persuaded that many of the disasters that occur to our trees, are occasioned by the intensity of our summer suns.—This protection might be afforded by planting the trellis within the afternoon shade of a wood or a line of buildings; and, in some degree also, by giving it a proper front.

If these observations, sir, should be useful to any person who is anxious to be informed, I shall be much gratified. An Amateur merely.

TRANSPLANTING TREES.

Though the season for transplanting trees has elapsed, your paper of last week may become a source of injury, loss, and disappointment to some of your readers, when that season shall return. The extract from the New York American, if not very attentively read, will not correct, but confirm and strengthen the erroneous opinion, too prevalent among farmers, that when a tree is transplanted, not only its life, but its health and vigor may be preserved, with all its top, or head, whatever loss it sustains in its roots. Sir Henry Stuart, referred to in the extract, speaks of trees transplanted with *all* their roots retained. Being a gentleman of fortune, the expense of moving a valuable tree was not considered; the proper apparatus must be prepared, and the tree, with all its roots, must take the station his fancy points out. The roots being preserved, the top requires no diminution.

As trees ordinarily are transplanted in this vicinity, the price, the cost of moving them, is a primary concern. A tree is taken from the forest, it is brought to the destined spot, the ground prepared, and the tree is set for one shilling, and the labourer makes high wages, and seeks employ in thus transplanting trees! What is the consequence? what is the labour? Having broken the ground at the tree with his hoe, the axe is sturdily applied—every root of considerable size is cut off within a foot or two of the body, while a few smaller ones are left to sustain and nourish the whole tree. Not unfrequently, nine-tenths of the roots are left where the tree stood. Now I ask, can the remaining tenth part furnish a current of sap, sufficiently strong and active to spread over the whole surface, which all the roots did but supply as nature required? Can this tenth part perform, not only its own part, but also that of the other nine? It cannot. Let the whole top remain, and in this case there can be but feeble, very feeble foliage, and probably none. *The sap that rises will be dried up by the sun.*

Whatever theorists may allege to the contrary, my opinion is sustained by various indisputable facts. The vigorous, healthy apple tree, from which the whole top is removed for the insertion of grafts, frequently dies of plethora. The food is prepared and brought forward for the nourishment of all the natural branches—there are no mouths to drink or receive it. Here and there a little scion relishes and enjoys a very small quantity, the remainder stagnates—the stock is drowned, turns black, and perishes. Thus I have often seen. Experience has convinced observing men, that where scions are set in a vigorous tree of considerable size, the farmer should be three years in removing the natural branches. This reasoning is strictly applicable to the transplanted tree. The roots which take a new station, should not be taxed above their means. If half the roots are cut off, why oblige them to support more than half their branches? It appears to me rational to let roots and branches be proportioned, in the second position, as nature proportioned them in the first.

Having paid much attention to this interesting subject, I am satisfied there is little danger of removing too many branches from a tree transplanted, if depredation has been boldly made upon its roots. If it needs more receptacles for the sap furnished, it provides them without labour?

It is peculiarly gratifying to the observing traveller in this vicinity, to see the taste, the enterprise, liberality, and patriotism, which a few spirited and benevolent individuals have displayed, in lining so many of our streets and villages with double ranges of rich and well chosen forest trees.—But little exertion is now necessary, to render each of our public roads a delightful promenade in a very few years. When in future, the weary traveller; after being scorched and broiled in an open road, on a sultry summer day, shall realize the refreshing air of a long, smooth, and shady street, he will bless the memory of that publick benefactor, whose liberality provided such a prospect, and such an innocent luxury, for publick and private enjoyment. [*Lancaster Gaz.*

RURAL ECONOMY.

(From Bordley's Husbandry.)

DISTILLATION.

The *Dutch* method of preparing wash, for malt spirit, saves much trouble and procures a large quantity of spirit. It is the most profitable method, and reduces the two operations of *brewing and fermenting* into one. It is this:—In proportion to 10lb of malt in *fine* meal, and 3lb of common wheat meal, they add 2 gallons of *cold* water, stirring all well together: then add 5 gallons of water *boiling hot;* and again stir all together. When this is cold they add 2 ounces of *solid* yeast; and ferment it in a warm place, loosely covered.—In England, by drawing and mashing for spirit, as they do for beer, pumping into coolers, and running it into fermenting backs, and fermenting it, they have twice the labour, and lose much spirit, by leaving the gross bottoms out of the still, for fear of burning. Sibley's Hist. Miscel. pa. 352.

FRESHENING SALT PROVISIONS.

In my passage on the Chesapeake, I observed my skipper would sometimes slice salted barrel pork, and in a few minutes freshen the slices in a frying pan; and then boil them for his dinner. The pork slices were put in fresh, cold water, in a frying pan, and held over a fire till the water *began to simmer* (never suffering it to boil in the least.) This water was then thrown away, and other cold fresh water was put in a pot together with the slices of pork. They were then boiled till enough.—This was applied, in my family, to freshening salt fish: especially cod sounds; and it answered admirably. Sometimes they were so over freshed, that it was necessary to eat salt with them.

When your hens are near laying, mix a little nettle-seed with their food, and always feed your poultry at regular periods, which will cause them to be familiar. When you design to set a hen, never put more than twelve eggs under her.

INTERNAL IMPROVEMENT.

INLAND NAVIGATION.

Northern Section of the United States.

The plan and execution of the two canals of New York, and perhaps still more, the plan and very near advance to completion of the Welland canal in Upper Canada, have arrested not alone the attention of the people of Canada and the United States, but of Europe, to the natural and artificial navigation of the sea of Canada,

The St. Lawrence or drain of that inland sea, is a river, or more correctly a strait, entirely peculiar to itself in America, and having but one counterpart, that of the Marmora Black sea, and sea of Azoph. To reach this fresh-water inland sea by a canal route from the dawn of civilized settlement, engaged the minds of every man of deep reflection who traversed the intermediate space from the valley of the Hudson. The accomplishment of this daring design we have witnessed, by the opening of not one, but two chains of canal and river routes.—The Erie canal entering above, and the Champlain below the great rock shelf of Niagara.

As far as the mere practicability of forming canals from the Hudson into St. Lawrence basin, is concerned, the dispute is at rest; but there are other very weighty considerations connected with this great section of commercial intercommunication which has never yet received due attention. The day is approaching by not slow advance when the free navigation of the St. Lawrence will be demanded by the people of the northwestern sections of the United States, and demanded in a voice which neither the United States or British governments, will be able to disregard. However despotic or free in name, all governments are in fact the mere organs of public will, and when events or interests of sufficient magnitude, arouse any people to the discussion of their aggregate will, governments of whatever form must yield to moral and physical force combined. It is a question not yet decided, how far any nation having political authority over the territory along the banks of a natural water channel, is authorised by the laws of either nature or nations, to bar its free use to other nations, particularly in cases where absolutely requisite to international communication. To answer this question in favor of the right of stoppage, would be to say that Denmark has a right to close the Baltic, and Turkey a similar right to deny a passage through the Dardanelles and Thracian Bosphorus; and without any very violent stretch of concession, would grant to France and Great Britain, the right to close by convention between themselves the British channel·

It is no little curious, that the two most rising nations in the world are most deeply interested to settle this question in favor of unrestrained intercourse. It is a very great mistake to suppose, that the demand which Russia is now enforcing with 300,000 men, is one of recent date. When Peter I. ascended the throne in 1696, his attention was first turned towards the Turkish frontier, and his first naval operations were made to secure the mouth of the Don. The first Russian ship of war was built at Voronetz on the Don, with a view to facilitate the taking of Azoph, which fell into the hands of Peter in 1697, and Taiganroc, on the northern shore of the sea of Azoph was fixed upon as the future seat of Russian power. These great designs were made too soon; Turkey was still too comparatively powerful; Azoph was again lost to Russia, and Peter substituted the swamps of the Neva to the shores of the Azoph sea, and Petersburg rose as if by magic amid alternately frozen and flooded morasses in N. lat. 60. The narrow escape of the Czar and his army in 1711, on the banks of the Pruth, only suspended, however, a design which became the main spring of *Russian politics*, and now, 1828, a *sine qua non* of Russian politics is the free navigation of the Thracian Bosphorus, Gallipoly and Hellespont or Dardanelles. In such a contest, it would be as much folly to charge the emperor Nicholas with personal ambition, as it would to charge him with land-locking the Black sea, or to charge him with that increased population, science and commercial avidity which is carrying him with the double current of physical and moral power into the Mediterranean. It was a similar dispute which put Louisiana into the hands of the United States. The Spanish government when in full possession of the Mississippi, had as unequivorally a right to debar its use to other nations as Turkey can now have to shut the Euxine. The United States secured a natural right by peaceable negociation and 15 millions of dollars, in place of establishing the same right by 150 million of dollars and a war; whether a demand or precisely like principles, respecting the St. Lawrence will be settled with as little expenditure of blood and treasure, time will determine. Whatever may be the issue we shall in the present instance proceed to examine the relative commercial channels of the natural section before us, or the base of existing political subdivision.

On the side of the United State as early as 1827, two canals were in actual operation. Previous, however, to the completion of either, it became obvious to the authorities and people of the Canadas, that when open, the Erie canal in particular, would divert an immense mass of produce from the St. Lawrence channel to New York. With a view to obviate consequences of such a revolution, and with still more enlightened and liberal views, the Canada Land Company projected, and have in great part executed the Welland canal As this new chain of inland navigation is but little known in the United States, some descriptive detail is necessary.

Lakes Erie and Ontario are separated by a peninsula, extending with a length of 40 miles east and west, between the western extremity of the latter, and the south-eastern of the former, and with a mean width of 25 miles. Along the eastern border of this peninsula winds Niagara river, falling from lake to lake 334 feet. Three-fourths of the whole surface is a plain in part marshy, and spreading northward from, and very little elevated above lake Erie. The plain is terminated about six miles from lake Ontario by that rock ledge over which the waters of lake Erie precipitate, and form that sublime natural curiosity, the falls of Niagara. Between the summit level and the sourthern shore of lake Ontario, the ground falls rapidly, and leaves a narrow alluvial border along the lake, stretching from the mouth of Niagara river to Burlington Bay.

Grand or Ouse river of Upper Canada rises at N. lat 43 deg. 40 m. long. 3½ W. from Washington, in the country of the Six Nations of Indians, and flowing thence south 70 miles, enters Haldimand county, and turning to S. E. winds by a very tortuous channel but sluggish current into lake Erie, which it enters 40 miles directly west from the outlet of that lake, after an entire comparative course of 100 miles. This stream in the lower part of its channel forms a southernest termination to the peninsula we are describing.

Rising east from Grand river, at about 16 miles from lake Erie, the Welland or Chippewa river flows by a general course to the eastward, and falls into Niagara river immediately above the rapids which precede the falls. Similar to Grand river, the Welland is a very sluggish stream. In reality as has been already noticed, the whole plain above the ridge is an almost dead flat, having in no direction sufficient inclination to admit any great velocity of current in the streams.

The Welland canal commences in Port Mailland at the mouth of Grand river, and follows the channel of that stream one and two-fifths of a mile, and thence up Broad creek seventh eighths of a mile.

Here the artificial channel commences by a cut of 10 miles through Wintleet marsh. This extensive morass spreads between Grand and Welland river, elevated but from 10 to 16 feet above lake Erie. Entering Welland river and descending it 10 miles, the canal is then conducted through the summit ridge by a stupendous deep cut, only equalled in America by the Desague near Mexico. The level of Welland river preserved to lock No. 1, 44 miles from the deep cut. Thus far steam boats, by either Welland or Grand rivers are admitted. Approaching the brow of the mountain ridge another deep cut of one-fourth of a mile leads to the tremendous brow, down which in a mile and 11 16ths, nearly the whole difference of level between lake Erie and Ontario, is overcome by 17 locks of 100 by 22 feet. The locks westward of the mountain ridge are 125 by 40 feet. There are very few if any works of art yet constructed in America, more worthy of a visit than this precipice of locks which are placed along the declivity, winding from right to left, none nearer each other than 30 yards, in order to give room to intervening reservoirs. At the foot of this series, the canal is led along a ravine 2½ miles by 12 locks, to St. Catharines, having descended from the summit level 322 feet. From the latter point to lake Ontario 5 miles, the canal by four locks, reaches its northern termination in Port Dalhousie.

If we consider the colonial condition of Canada, the thinness of population and limited resources of the people of that country, it is impossible to repress our admiration of the splendid design and prompt execution of this truly great work. It will, when completed, admit the passage of the largest vessels which can navigate on lake Erie, and it is expected to be opened late in the present or early in the ensuing year.

The Canada Land Company has the immortal honor of planning and forming this connecting link in their chain of water intercommunication between the upper and lower sub-basins of the St. Lawrence. Never has any work more effectually answered its purposes than will the Welland canal. The largest vessels that can navigate lake Erie, and enter its shallow ports, are generally about from 50 to 90 tons, with a breadth of beam of 20, and keel of 90 feet. The objects which were to be obtained by the formation of the Welland canal, have already been stated, but there are other advantages secured to its projectors, or possessors, which cannot be overlooked, and one of the greatest arises from the prevailing winds on lake Erie, and from the peculiar manner by which that lake *debouches* into Niagara river. The winds throughout the year blow so generally down the lake as to demand for a voyage from Buffaloe to Detroit, from three to four or five times as many days as the reverse passage. Lake Erie narrowing also at its north-eastern extremity, and Niagara river turning nearly at right angles to the general course of the lake, forms a gorge into which ice is driven by the never tiring westerly and north-westerly winds. From these combined causes, the outlet of the Welland canal will be open from one to two months annually longer than will that of the Erie canal from Buffaloe and Black Rock.

Without indulging an illiberal spirit of national rivalry, it is obvious that nature itself points out the necessity of obviating by artificial means the very defective navigation of lake Erie. Except Detroit and Niagara rivers no one of the shore harbors of lake Erie, admits a safe and steady entrance of 7 feet; also along the United States shore, extend long lines of rock bound, and on the Canada side equally extended and dangerous reefs of sand. To these unchangeable impediments in the earth, may be added the perennial currents of air, to doom the navigation of this sheet of water to eternal danger, and diminutive tonnage. "*Rivers were made to supply canals with water*," said Brindley, and never was the sublime expression more applicable than along lake Erie. The same streams which deny entrance to large vessels from the lake, would afford an abundant supply of water to a canal, never certainly did more circumstances combine to excite to the performance of any other undertaking, than does to that of encircling lake Erie with a canal from Buffaloe to Detroit. It would more than complete the chain already in part executed in the Erie, and in progress in the Ohio canal; and the whole taken together, constitute one of the most useful and extensive lines of natural and artificial navigation, not only in existence, but which the earth admits to be put into existence.

The following table of stationary distances will at once enable the reader to perceive the facilities which nature itself presents to the advancement of the proposed work.

Buffaloe habour to Smoker's creek,	*miles.* 4
Cayuga creek,	9— 13
Two Sisters creek,	6— 19
Cattaraugus creek,	9— 28
Dunkirk harbour,	13— 41
Fredonia creek,	1— 42
Portland mouth of Chataque creek,	14— 56
Northern angle of Pennsylvania,	10— 66
Twenty Mile creek,	1— 67
Sixteen Mile creek,	6— 73
Twelve Mile creek,	5— 78
Erie town and harbour,	8— 86
Fairview and mouth of Walnut creek,	5— 91
Elk creek,	6— 97
Crooked creek,	5—102
Northwest angle of Pennsylvania,	4—106
Conneaught village and river	1—107
Ashtabula village and river,	14—121
New Market and mouth of Grand river,	27—148
Creek,	9—157
Cuyahoga river and town of Cleveland, where the Ohio canal debouches into lake Erie,	18—175
Rocky river,	6—181
Black river,	18—199
Beaver river,	4—203
Vermillion river,	5—208
Old Woman's creek	10—218
Huron river,	3—221
Sandusky bay,	10—231
Portage river,	20—251
Toussaint river,	8—259
Maumee river,	15—274
Raisin river,	9—283
Stoney creek,	5—288
Huron river,	10—298
Rouge river,	22—320
Detroit,	3—325

At the first blush, it will no doubt to many persons appear extravagant, to propose bordering a navigable lake of above 300 miles in length, with a canal; but if a careful comparison is made between the safety and regularity of transportation by such a canal, and the very uncertain and tedious navigation of the lake, a decision would at once be made in favor of the former. The same canal boat which would be loaded in the Ohio or Hudson, could without transhipment, be conveyed to the opposite extreme.

The most remarkable circumstance, however, in such a canal, is that it could be carried upwards of 300 miles on one level, if such a mode should be requisite; and in any manner of construction, would demand less lockage and be more secure of an uninterrupted supply of water, than any other canal line of equal length which can be traced in the United States.

Beside the Cuyahoga and Ohio canal, several other navigable streams issue from Ohio and Michigan, and flow into lake Erie, of which, Vermillion, Huron of Ohio, Sandusky, Maumee, Raisin, Huron of Michigan, and Riviere Rouge are considerable volumes of water.

In the very rapid advance of population, the almost naturally continuous navigable line by the Wabash and Maumee, will come forward and obtrude itself on public notice, much sooner than any person would now dare to anticipate. A single glance on a map of that part of the United States, will render demonstrative, how completely the Wabash and Maumee route would harmonize with the Ohio and Erie canals. But we must pause, the many national and individual benefits of the suggested improvements are so obvious, as to present themselves at once without a prompter. My next will be employed on a general view of the Canadian sea, and St. Lawrence river.

[Errata to Rafts in the Red and Atchafalaya rivers, column 2nd, page 149, for "*Proguy*," read *Progny*.]

LADIES' DEPARTMENT.

FEMALE EDUCATION.

In the "Toilet, or Ladies' Cabinet," published once a week at Providence, R. I., we have the following selection.

Female education is of immense importance, as connected with domestic life. It is at home where man generally passes the largest portion of his time, where he seeks a refuge from the vexations and embarrassments of business, an enchanting repose from exertion, a relaxation from care by the interchange of affection; where some of his finest sympathies, tastes, and moral and religious feelings are formed and nourished; where is the treasure of pure and disinterested love, such as is seldom found in the busy walks of a selfish and calculating world. Nothing can be more desirable than to make one's domestic abode the highest object of his attachment and satisfaction.

Well ordered home, man's best delight to make,
And by submissive wisdom, modest skill,
With every gentle care-eluding art
To raise her virtues, animate the bliss,
And sweeten all the toils of human life—
This be the female dignity and praise.

Neither rank nor splendid mansions, nor expensively furnished apartments, nor luxurious repasts can accomplish these actions. They are to be obtained only from the riches of elevated principles, from the nobility of virtue, from the splendor of religious and moral beauty, from the banquet of refined taste, affectionate deportment, and intellectual pleasures. Intelligence and piety throw the brightest sunshine over the dwellings of private life, and these are the results of female education.

Intelligence and animated discourse, eminently exalt the dignity, and multiply the charms of every female that can excel in them—

It is a sacred and home-felt delight,
A sober certainty of walking bliss.

She who can sustain an elevated course of conversation; whose mind soars above the trifles and common things of time and sense; who is distinguished for well digested opinions, sensible remarks, habits of thinking and observation, good judgment, and a well disciplined temper, is a perpetual source of blessings and exhilaration to all within her circle.—She will make home all that is desirable, so that none of her household will need or wish to seek elsewhere for happiness. They will be able "to drink waters out of their own cisterns, and running waters out of their own wells."

HAPPY PARENTAL DISCIPLINE.

The son of a minister, now living, had by some means excited the displeasure of his father. His father thought it right to be *reserved* for an hour or two; and when asked a question about the business of the day, he was very short in his answer to his son. An hour or more elapsed; the time was nearly arrived when the youth was to repeat his lessons. He came into his father's study, and said "Papa, I cannot learn my lesson except you will forgive me; I think I shall never offend again." His father replied, "All I wish is to make you sensible of your fault; when you acknowledge it, you know all is easily reconciled with me." "Then, papa," says he, "give me the token of reconciliation, and seal it with a kiss." The hand was given, and the seal most heartily exchanged, on each side. "Now," exclaimed the dear boy, "I will learn Latin and Greek with any body;" and fled to his little study. "Stop, stop," exclaimed his father, "have you not a Heavenly Father? If what you have done be evil, *He* is displeased, and you must apply to him for forgiveness." With tears starting in his eyes, he said, "Papa, *I went to him first:* I knew, except he was reconciled, I could do nothing," and with tears now fast rolling, he said, "I hope, I hope, He has forgiven me; and now I am happy." His father never had occasion to look at him with a shade of disapprobation from that time to his death.

From the Hesperus.

ORIGINAL EPIGRAM.

When *Harry* was *old*, to Maria he said,
"My dear, if you please, we will marry;"
But Maria replied with a toss of her head,
"I never will wed the *Old Harry*."
He waited till all her gay suitors were gone,
Then cried, "a fine dance they have led you;
The hand that I offer'd, you treated with scorn,
And now, the *Old Harry* won't wed *you*."

X. Y. G.

SPORTING OLIO.

SETTER DOGS.

[A valuable acquisition for the lovers of field sports, has been gained by the arrival of a brace of setter dogs, the most beautiful we have seen, sent a present to John McTavish, Esq. by the Marquess of Wellesley, K. B. Attracted by their fine appearance, and aware that the Irish Althæ dog stands unrivalled with European sportsmen, we inquired into the history of these, with a view to register the particulars under this head of the American Farmer, to enable the owners of their descendants to refer hereafter to an authentic account of their mportation and breed. The following is the result of the inquiry—The dogs are of bright chesnut coour.]

Manor, July 25th, 1828.

Dear Sir—I have just received a letter from Sir Richard Hunter, respecting the dogs, an extract of which I annex. It contains the information which ou applied for last spring, and which, at that time, had not in my power to supply.

Very respectfully.
JOHN McTAVISH.

. S. Skinner, Esq.

Extract of a letter from Sir Richard Hunter, to Mr. McTavish.

London, June 5th, 1828.

The setter dog's name is "*Dash*," he was 3 years old last May.

He is of Mr. Tumara's breed, who lives in the Wicklow Mountains. His sire was an English thorough bred setter, and his dam a beautiful white Irish one; no cross can be more perfect—they are well known in Ireland, by the appellation of *Tomara's breed.*

The female's name is "*Dido*," she was 3 years old last October; she is one of Mr. La Touche's breed, and was bred in the county of Kildare—it is impossible to have higher blood—there is no cross in this breed, she is purely Irish; great care is taken by him that they do not breed in and in, by which the produce would degenerate—they are well known all over Ireland by the denomination of *the La Touche breed.*

(From late English Papers.)

Chess.—The long pending match between the London and Edinburgh chess clubs, is still going on. It is about four years since the match was begun, and four games have been played with equal success. The fifth is now playing, and the pieces are reduced to three, and the pawns to five on each side; but we understand that the London club have it in their power to take a bishop without any immediate loss to themselves. In this situation, it may be presumed that the fate of the game and match is no longer doubtful.

Extraordinary Leap.—Colonel Emmerick, a sportsman and a soldier, being pursued by a party of light horse, when going with despatches from his commander in chief, the late Duke of Brunswick, rather than surrender, leaped a precipice with his horse of thirty-six feet fall, without receiving any injury, and continued his route. In commemoration of this bold and gallant daring, his statue, on his steed, was erected on the spot, at Brucksel in Germany—a monument of his zeal and intrepidity.

Pedigrees of Thorough bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(*Continued from page* 143.)

106. Fitzpartner, sixteen hands and a quarter high; got by the noted horse Old Partner, his dam by the imported horse Aristotle, grandam by the noted horse Whittington, great grandam by Double Bean, out of an imported mare, the property of Col Eppes. David Clarkson.

Albemarle, Va., March, 1800.

107. Lexington, a fine bay, fifteen hands high, remarkable for his great strength. He was bred by Richard S. Taylor, of the county of King William. He was got by the celebrated horse old Wildair, formerly the property of Col John Syme, of Hanover county; his dam by the celebrated horse Longsdale; his grandam by the famous horse Jolly Roger; his great grandam descended from the noted running horse Gift, which was imported to America some years past by the late Colonel Dangerfield, of New Kent county.

April 1st, 1800. Andrew Woodley.

108. Lamplighter, a beautiful bay, 15½ hands high, elegantly formed; was got by Hart's old imported horse Medley; his dam by Longsdale, out of Braxton's imported mare Kitty Fisher.

Paul Thilman.

Hanover Court House, Va., Feb 1801.

109. Young Medley, a beautiful iron grey, near fifteen hands high, remarkable for his elegant form, great speed and strength. He was got by Bellair, (a son of old Medley,) his dam was got by the famous Pennsylvania Farmer, out of a full bred Partner mare. Thomas Wells.

Charlottesville, Va., April, 1801.

110. Hail Storm, a beautiful bay, upwards of sixteen hands high; ten years old last spring. He was got by the high blooded English horse Pantaloon, who was got by Matchem out of a high bred and celebrated running mare. Pantaloon was sire to Chanticleer's dam, and many fine racers. The dam of Hail-Storm was Wingyfeet, who was got by Jolly Roger, who was got by the imported Jolly Roger out of Mary Grey. Wingyfeet was out of Melpomene, who was got by Burwell's Traveller. Melpomene's dam was Virginia, got by old Mark Anthony on Polly Byrd, who was got by Aristotle out of young Bonny Lass, who was got by Jolly Roger out of old Bonny Lass, a fine English mare.

Francis H Dancey.

Charles City Court House, Va., Jan. 1802.

111. Gimcrack, a roan colour, was got by Hart's imported Medley, (the best blood in England,) his dam by Ariel, brother to old Partner; his grandam by Whittington; his great grandam by Dabster, out of Col. Anthony Thornton's celebrated roan mare, considered the first of her day in England.

F. G. Bacon.

Nottaway county, Va., March, 1802.

N. B. Gimcrack was a celebrated racer and foal getter.

112. Sans Culotte, a chestnut sorrel, 7 years old this spring, was got by old Celer, dam by the imported Medley; grandam a thorough bred Fearnought mare. Stephen Davis.

Charlotte county, Va., March, 1802.

N. B. Sans Culotte was bred by the hon. John Randolph, and was a very high formed horse and valuable foal getter.

113. Young Dare-Devil, five feet three inches high, five years old in May next; was got by the noted imported horse Dare-Devil, his dam by a son of old Partner, out of a mare which was got by an imported horse. John Clopton.

New Kent county, March, 1802.

114. Highflyer, late the property of Wm. Newson, Esq., purchased by James Barbour, Esq., at 1000*l.* He is of a beautiful form, bright bay, 5 feet three inches high, rising eight years old. He was got by Wildair, his dam by the celebrated old Yorick; grandam by Regulus, imported by Lord Dunmore; his great grandam by the imported horse Sterling; his g. g. grandam by old Janus; his g. g. g. grandam by Silver-Eye; his g. g. g. g. grandam by Spaneo. David Clarkson.

Albemarle county, Va., March, 1802.

115. Wild Devil, a beautiful bay, 16 hands 2 inches high, an elegant form, strong and nervous, and very lengthy. He was by old Dare Devil, his dam by Wildair, his grandam by Rockingham, his great grandam by Spanking Roger, out of a Jolly Roger. John Anderson.

Hanover Town, Jan. 1803.

116. Mountain Leader, a beautiful chestnut sorrel, five feet two inches high; eight years old next spring. He was got by old Wildair; his dam a Mousetrap mare. Caleb Boush.

Chesterfield, Va., March 1803.

117. Thor, a fine bay, full 15½ hands high, of great strength and beauty, and rising six years old. He was got by old Diomed, his dam by old Wildair, his grandam by Clockfast, his great grandam by old Partner, his g. g. grandam by old Regulus, out of an imported mare. Philip Rogers.

Tuckahoe, near Richmond, Feb 1806.

118. Young Figure, a beautiful blood bay, 15 hands 3 inches high, remarkable for strength, acti-

vity and symmetry, of form. He was got by the imported horse Highflyer, his dam by old Figure, his grandam by Camillus, his great grandam by Gen. Nelson's Rockingham. C. Carrington.

Cumberland county, Va., March, 1799.

119. Fitz Medley, a beautiful dapple grey, upwards of fifteen hands high. He was got by the imported horse Medley, his dam by Dandridge's Fearnought; his grandam by Harris's Eclipse, out of a high bred Jolly Roger mare.

John Epperson.

Buckingham, Va., March, 1799.

120. Agricola, a fine black, five years old this spring; five feet five inches high. He was got by Highflyer; his dam by the imported horse Dove, on Emory's noted running mare in Maryland.

Reuben Short.

Chesterfield, Va, April, 1800.

THE FARMER.

Baltimore, Friday, August 1, 1828.

☞ How intelligible! how much to the point! how encouraging! how acceptable!

Sir—I have always remitted in advance of twelve months subscription for the American Farmer: your receipt 23d March, 1827, was for the 9th vol. I now inclose the note of the Office of Discount and Deposit, in Charleston, the 2d of October, 1827, Joseph Johnson, Prest. A. 125—$5 payable to A. Rose or order—in advance of vol. 10, which please acknowledge. I remain, sir, your obd't serv't,

JAMES SHOOLBRED.

Charleston, 16th July, 1828.

AMERICAN LITERARY, SCIENTIFIC AND MILITARY ACADEMY.

Middletown, Conn. June 12th, 1828.

The public are respectfully informed, that by a recent arrangement, the duties heretofore discharged by Capt. Partridge, in conducting the discipline and instruction of the institution, have been in part assigned to others.

Capt. Partridge, as President, will retain the general supervision of the institution, and continue his regular courses of Lectures.

The government is vested in a Superintendent, and Board of Investigation, composed of the President and officers of the institution, to be guided by such rules and regulations as may be adopted by the Board of Trustees.

The Trustees will, at least once in each month, personally examine the situation and concerns of the institution; and strict attention will be paid as well to the moral and religious, as to the scientific and literary instruction of the Cadets.

A competent number of gentlemen, educated at the Academy, and prepared by the experience of several years as Professors in the various branches of education here taught, and by a familiar acquaintance with the peculiar mode of discipline and instruction here pursued, have been engaged, with the assistance of other able instructors, to take immediate charge of the different departments.

A junior department, for the younger members of the Academy, will be established, in which they will pursue their studies under the personal care and instruction of one or more instructors. In all other respects, they will enjoy the privileges and be subject to the discipline and duties of the older Cadets. This arrangement, without in any degree affecting the expediency of placing youths of that age in a primary school, as recommended in the last prospectus, will afford them the same advantages at this institution, while at the same time, they become familiarized with and prepared for the discipline and duties of the senior department.

The course of instruction will be full and thororgh in all the branches, both of theoretical and practical Mathematics, Natural Philosophy, Civil Engineering; in the ancient and modern Languages and Literature, including Greek, Latin and French, Spanish and English; in Moral Philosophy, Chemistry, Botany, and Mineralogy; in Military Science, including Gunnery, Tactics, Military History and Fortifications; also, Fencing and Penmanship. The discipline and exercise will be military, and will tend to produce physical and mental vigor, and promptitude and regularity in every department of academic duty. The hours allotted to this exercise, will be those only that are usually spent in idleness or amusements too often useless and frivolous.

The Academic expenses, including tuition in each or all of the above mentioned branches of education, board, washing, room rent, fuel, candles, use of arms, accoutrements, and the requisite instruments for practical operations, will be two hundred and seventy-five dollars a year.

Clothing, books, stationary, furniture for rooms, including bedding, will be furnished on the lowest terms, to those who may be desirous of obtaining them here. The quantity, as far as practicable, will be limited by the rules heretofore established. Incidental expenses, which, from their nature, cannot be specified, will, in the absence of particular directions, be regulated by the Superintendent. To enable him to do this, no money must be furnished to a Cadet, except by the Superintendent or his order.

No debts contracted by any Cadet without the permission of the Superintendent in writing, will be paid.

It is expected that provision will be made for the expenses of each Cadet, at least six months in advance.

This arrangement will go into operation on the first day of September next. Being the result of experience, and considered as an improvement calculated to relieve the hitherto arduous duties of Capt. Partridge, it will, it is trusted, be found in its operations, highly beneficial. Those who have placed, or may previous to that time, place their sons or wards here, will, if they prefer, have their bills for instruction and expenses, made according to the rules stated in the last prospectus, instead of the gross sum of two hundred and seventy-five dollars. After September first, all communications will be addressed to

V. B. HORTON, *Superintendent.*

It is deemed superfluous to descant upon the merits of the system of discipline and instruction adopted in this institution. The object is, to improve the existing systems of education, principally in the following particulars, to wit:

1st. To adapt the course of duty to the intended persuits in the life of the student.

2d. To advance his standing in the Academy, according to his proficiency in his studies.

3d. To reduce the time usually devoted to the study of the ancient Languages, excepting in cases in which they may be useful, considered in reference to the intended pursuits in the life of the student.

4th. To embrace the French and Spanish languages in the regular course of instruction.

5th. To adopt as part of the regular course, in addition to the sciences usually taught, a general course of practical Mathematics; Civil Engineering, particularly as applied to the construction of roads, rail-rays and canals; Topography and Military Science.

6th. To teach, as a part of the regular course, but without encroaching on the time appropriated to study, military exercise, fencing, and the use of arms.

7th. To combine the cultivation of the mental and physical powers in such a manner as shall promote the full development of the faculties of the body, with soundness of health and constitution, and thus enable the individual to exert and sustain the habitual exercise of the highest energies of which his mind is capable.

The high degree of approbation of this system, which has been manifested by the American people, while it affords evidence of their desire to encourage useful improvements in education, and of their patriotism, authorizes us to hope that the liberal patronage which the institution has hitherto received, will not be withdrawn so long as it shall continue to be merited.

GEORGE W. STANLEY,
JOHN ALSOP,
V. HUBBARD,
NATHAN STARR,
WM. L. STORRS,
SAMUEL D. HUBBARD, } *Trustees.*

The above prospectus is issued under an arrangement entered into between me and the Trustees, and with my concurrence and approbation.

A. PARTRIDGE.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS.

The subscriber is just finishing a quantity of Wheat Fans, which he is sure will give satisfaction to the purchasers, and will be warranted superior. Also, on hand, a full assortment of Davis' Improved Patent Ploughs, of wrought and cast Shares; likewise of the Improved Barshare Ploughs; Brown's Vertical Wool Spinners; Patent Cylindrical Straw Cutters, and most other Implements of husbandry, on hand as usual.

JONATHAN S. EASTMAN,
No. 36, Pratt-st. Baltimore.

N. B. For sale, a quantity of Turnip and Millet Seed, which will be warranted of good quality, and at low prices. *July* 18.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.00 *a* 5.00—fine red, 5.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-street, 4.87½ *a* 5.00; city mills, 4.87; Susquehanna, 4.75—Corn Meal, per bbl. 2.50—Grain, best red wheat, .95 *a* 1.00—best white wheat, 1.00 *a* 1.10—ordinary to good, .80 *a* .90—Corn, .32 *a* .34—Rye, .45—Oats, .22 *a* .24—Beans, 1.50—Peas, .60 *a* .75—Clover seed, 3.50 *a* 3.75—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb —Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $220--Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—Bacon, hams, Balt. cured, .11 *a* 12½; do. E. Shore, .14—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Marketing—Butter, per lb. .12½ *a* 25; Eggs, dozen, .15; Potatoes, bush. .75; Chickens, dozen, 2.50 *a* 3.00; Beef prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6¼ *a* .7; young Ducks, doz. 2.50; young Lambs, dressed, 1.75, Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Soft Crabs, doz. 1.50; Hard do. .12½ *a*. 18¾; Peaches, 1.50 per peck; Pears, .50 *a* .75 per peck; Apples, .12 *a* .25 per peck; green Corn, .10 per dozen.

Hay, per ton, $9.00; Rye Straw, 6.00; Cut Grass, per bundle, .10 *a* .12½.

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AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

(Continued from p. 154)

Another topic, which might with great propriety be recommended to their attention, is the quality of that substance which is most commonly found intimately mingled with the pile of our fleeces, which on account of its yellowness and consistency, its egg-like appearance, is aptly denominated yolk.—The investigation of its properties, and of the good effects which it produces upon the ,fleece while growing, is more properly the business of the grazier than of the woolstapler, and he has the most abundant means of acquiring information. Hitherto it must be acknowledged that they have been too much neglected; yet the few facts with which we are furnished, indicate that without the assistance of yolk, or the application of some other substance which shall act as a substitute for it, wool possessing the best qualities cannot be produced.—The celebrated breeds of Berry, of Castile, and of Persia, we are informed, furnish the most copious supply of yolk, and at the same time yield those valuable fleeces which are eagerly sought after by the manufacturers of the countries where they are shorn, in order that they may be able to supply even distant markets with the most valuable commodities. The attempt to improve the fleeces of England, of Germany, and of Sweden, by the introducing of foreign blood, has uniformly exhibited proofs of the value of this nutritious substance; not only by communicating to the offspring a more soft and attenuated pile, but by enabling them to yield for its support and preservation a much larger supply of this valuable fluid. And even the native breeds of our own island, whose unmingled blood has flowed through several ages, if attentively examined, evince that the power of producing a copious supply of healthy and nutritious yolk, is one of the most important qualities of wool-bearing animals, and that there is scarcely any property in which they differ from each other more widely.—The fleece itself when shorn without washing most clearly shows that the breast and shoulders of sheep have generally yielded it much more freely than parts remote from the vitals; and the good qualities of the pile which is produced there, are distinguishable by the most untaught observer. On the hinder parts of those animals, which have been long neglected, a coarse and shaggy staple is most commonly observed, and the wool becomes finer and more valuable as it approaches the fore quarters; but in cases where the sheep have been improved, and a larger quantity of the animal juices directed to the thighs, the breech of the fleece has not only become less extensive, but is also composed of a smaller hair; a circumstance which on many accounts is well worth the attention of the grazier.—The quantity of yolk which our native breeds produce is in general smaller than that of foreign sheep; yet even among them the variety is so considerable as to furnish data for very useful conjectures. In the southern parts of the island, it is sufficient for the production of a coat which enables the flocks to endure the rigors of winter without any additional covering, sufficient also to prevent the fleece from becoming thin or hairy; but in the northern parts of the kingdom, and upon the hills of Scotland, some of the breeds of sheep produce it in such small quantities as to render it unsafe for the farmer to expose his flocks to the severities of the winter quarter, unless he furnish them with an artificial covering of grease mingled with tar, in order, as he says, to keep them warm. Yet he confesses that he finds this dirty coat as indispensably necessary to the good qualities of the fleece as it is to the health of the animal; without it the wool becomes hairy, thin and light; with it, the fleece is full, soft and rich, possesses a sufficient quantity of healthy yellow yolk, and appears to thrive much better after the tar has been laid on than it did before: the nature, the qualities and the condition of the wool are most wonderfully improved.—From these circumstances, we conclude that the yolk, a substance which has been so greatly neglected, yet has so long deserved the attention of the grazier; which has been perpetually under his eye through a long course of ages, is not only necessary to the production of a valuable fleece, but is the very pabulum of wool. The French have taken much greater pains to ascertain the nature of this valuable oil and its effects upon the fleece than the English, although we can boast of much older manufactures than theirs, and the assistance of the legislature through more than four hundred years. On the other side of the channel, intelligent manufacturers have been encouraged to institute experiments, and perform them with such ease as to convince themselves that some of the best qualities of wool depend greatly upon the quantity of yolk in which the fleece is produced. The English wool which they tried, and found remarkably deficient in this respect, they pronounce to be "hard, dry and rotten." When they assumed the character of experimental philosophers, and endeavoured to elicit the secrets of nature, we trust that their judgment was not influenced by the prejudices, which too often exist between rival artists; nor should ours so far prevail as to render us too proud to learn even from a junior and a foe.

Some who have thought upon the subject have concluded from the oiliness of the yolk, that it consists of the common perspirable matter, which all animals exude, mingled with a portion of that greasy substance which sheep so copiously secrete. But M. Vauquelin, who has submitted it to the test of chemical analysis, declares as the result of his experiments, that "the greater part of it is a soap with a base of potash," and that the remaining portion consists of that salt in a state of combination with other substances. The whole of it he considers as the production of the animal, without the addition of any ingredients which the fleece might accidentally collect from the soil or the litter upon which the sheep reposed. The account which this learned chemist has published upon the subject, together with some remarks upon the method of scouring and bleaching wool, may be found in the Philosophical Magazine, vol. 19. We are sorry that a person so well qualified did not push his experiments farther, and endeavour to ascertain whether the yolk be similar in all the various breeds of sheep, and how far it differs from the matter perspired by other laniferous quadrupeds.

The manner in which the yolk acts upon the wool is not accurately known. Some have considered it as the superabundance of that substance which forms the filament, and which by some unknown process, while the pile is growing, is consolidated into a transparent mass; while others conclude, perhaps more reasonably, that it is a peculiar secretion, which exudes through the skin, and by intermingling with the pile renders it soft, pliable and healthy; affecting it much in the same way as oil does a thong of leather when kept immersed in it and perfectly saturated. A very curious and intricate question has been asked respecting the mode in which the wool imbibes the yolk, whether by means of the root alone, or also by the pores which it is supposed may be scattered through the whole length of the hair. But as this question, if solved, promises no useful information, we shall leave it to the advocates of the respective hypotheses to determine, and satisfy ourselves with having barely mentioned it.

Much need not have been said upon the nature of yolk and its intimate connection with the good qualities of wool, when speaking upon the peculiar constitution of sheep, had not this distinguishing feature of their different families been too much neglected. In general this substance has been noticed without any particular reference to the breed of the animal, or the qualities of the fleece which it bears; sometimes as totally disregarded as the sand, or the hay seed, which are accidentally mingled with the pile. Yet the disposition to produce this valuable animal soap is certainly as important as some other characteristics of the sheep, and ought not to be overlooked when we describe their different varieties, or select them for our farms.

I have not yet seen any of those animals or their produce, which are said to afford a staple equally fine from every part of the body, but conjecture that if this breed were minutely examined, it would appear that the yolk is produced in equal quantity on every part of the carcass. The sheep also which produce wool upon their bellies and shanks, like the Merino family, most probably yield a good and healthy yolk down to the very fetlock; while those which cover these parts with a short and opaque hair, like the Wiltshire breed, afford the secretion so beneficial to the staple only from the upper parts of the half covered body. The dissimilarity of the fleeces yielded by these two kinds of sheep, the complete envelopment of the one, and the scanty coat of the other, leads us to suppose that the quantity of wool, which we produce from an individual sheep, is in a great measure regulated by the conduct of the grower. If he approach the purity of the Spanish blood, he clothes his flock in a kind of surtout which enwraps every part of the animal, except the lower extremity of the face and the feet; and by selecting his rams from the Downs of Marlborough, if he were ambitious of such a distinction, he might probably produce a race entirely devoid both of wool and of yolk.

It has already been suggested that it would be the extreme of folly to point out any particular breed of sheep as that which, in all circumstances, might be considered as the best. On this point the opinion of the wool-grower must be determined by the demands of the manufacturer and the circumstances of his farm; yet he may always depend upon it as an indubitable fact, that whether he produce long wool or short, of a coarser or a finer pile, it will be good or bad, adapted to the purposes for which it is designed, or not so, in proportion to the quantity of sound and healthy yolk in which it is produced.

Here, as in every other case, the breed is of the utmost consequence. It is the basis upon which all improvements of the flock must be founded; the only source of hope, that attempts to produce fine wool of the first quality, will be followed by success. Other circumstances are generally imposed upon the shepherd, and he has little more control over them than over the storms of winter or the sultry heat of autumn. He may preserve his flocks from their extreme influence, but cannot entirely counteract it. But the breed, the constitution of his sheep, he can change almost at will; it is submitted to his own direction and deserves his first regard. The temperature to which sheep are exposed has long been considered as one of the prime agents in the production of fine wool. This valuable substance was observed to abound most in countries, which enjoy the influence of a mild and generous climate, exposed neither to the oppressive heat of the torrid zone, nor to the chilling winds of the frigid. The best fleeces are grown in Spain, Italy and Persia; countries which lie under almost the same parallels, and enjoy a temperature sufficient to maintain that copious and regular perspiration of the animal, which is undoubtedly favourable to the production of good qualities in wool, although not absolutely essential to the fineness of the pile. It was supposed that a greater degree of heat by dissipating the juices of the sheep, prevented them from nourishing the wool; and that the fleece by this means became short, thin and hairy. On the contrary, in regions where the climate was less warm, it was conjectured that the yolk, or whatever it be that promotes the growth of the hair, was rendered unsuitable to the production of an attenuated pile, and caused the fleece to be coarse, long and shaggy. The opinion was supported not merely by observing the situation of the countries where the better fleeces are grown, but also by remarking that when a sheep changed its climate, it produced an offspring, not so much resembling itself as the laniferous animals which surrounded it; and that in a few generations its descendants were scarcely distinguishable from the native sheep. The instances, which have been adduced with the greatest confidence, as affording a sufficient demonstration of the all-powerful influence of climate, were collected from accounts which have been given of English sheep exported to the West Indies; of Spanish to South America, the Cape of Good Hope and some other countries; and of those, which were regularly conveyed by the Dutch to the island of Java. The degeneracy of their offspring has been thought a sufficient reason for supposing, that the constitution of the wool-bearing animal was incapable of enduring, without injury, the excessive heats of these southern regions. But in these instances the intermixture of blood was entirely overlooked, and the animal absurdly expected to produce a lamb exactly similar to that which it had dropped in its native country, when mated with one which carried a fleece resembling its own. The insufficiency of this argument is now generally acknowledged, for by more accurate observations, it has been discovered that the sheep of England, when transported to Jamaica, yield the same kind of "burly fleece" as they did at home, and if prevented from mingling their breed with that of the native stock, their offspring afford a wool exactly similar to that which they would have done in this climate. Even the hairy native sheep of the island, which probably came originally from the Spanish main, and were supposed to possess a coat without any admixture of wool, are found to produce that substance in small quantities concealed beneath their stronger and more brittle covering, and would most probably produce it in a larger proportion, if proper measures were taken to cultivate it. But in a country where the fleece is not shorn, and in a climate where the woolly pile is little used, it is not wonderful that the flocks should be neglected, or their produce little regarded. The same general remarks apply to those sheep of Spain, which have been exported to the American colonies. So long as they were suffered to intermingle with those, which had been introduced from other quarters, the race invariably degenerated; but since care has been taken to preserve them distinct, as good wool has been imported into Spain from Buenos Ayres as the individuals would have produced at home. At the Cape of Good Hope, the Spanish flocks have uniformly exhibited the same phenomena. When preserved pure from the native blood, the lambs have been distinguished for the beauty of their fleece; and the descendants of a pair, which have been carried even to the distant shores of New South Wales, whose progenitors were conveyed from Spain to the United Provinces, and from thence to Africa, produce a fleece so correctly beautiful as to rival, it is said, the best produce of the Leonean mountains. The animals, also, which have been observed to cast their fleeces, when sent on shore in Java, most evidently do so, not because the heat of the climate is incompatible with the growth of wool, but because the land about Bantam is naturally ill adapted to the constitution of sheep. They are driven to the mountains, a more cool and dry situation, not so much with a view of preserving their fleece, as to secure their health, and prolong their lives. The existence of fine wool in the more temperate regions has been accounted for upon principles very different from the natural tendency of those climates to promote its growth. The superiority of the Spanish, the Italian, and the Persian fleeces, has been traced already to the establishment of ancient manufactures, which continually affected the flocks through a long succession of ages. To this cause it is most naturally attributable, and there is no occasion to seek for an auxiliary one. Had the superior kind of wool derived its excellency only from the influence of the sun, of the clouds and the soil, the fleeces of the southern parts of France, of Turkey and Arabia, even those of the northern portion of Hindoostan and of China, must have borne to each other a very considerable resemblance; nor could the pile of Spain have greatly degenerated by being conveyed to the hills of Mexico or of the United States of America. If a moderate degree of warmth had been absolutely necessary to the existence of wool-bearing sheep, none of them would have been found on the coast of Guinea, nor in the scorching regions of Bengal; it would have been impossible that both distinctions, those which produce a valuable pile, and those destitute of it, should exist together almost in the same plains, and crop with equal avidity the same arid grasses. The production of wool even under the equator, is one of the most convincing proofs that the fleeces of sheep are not so greatly affected by the sultry and oppressive heat of the climate, as by the constitution of the animals which produce them.

But the effect of heat upon wool is nevertheless very remarkable. Dr. Anderson, in his observations upon the fleece, has clearly proved that the pile, produced during the prevalence of hot weather, is visibly coarser than that, which the same sheep affords in the colder season. He supposes that the superior degree of heat expands the pores of the skin, and that the absence of it tends to contract them; so that the pile which is protruded through them becomes thicker or thinner in the same proportion as the diameter of the aperture is larger or more contracted. It is to be regretted that he did not extend his experiments farther, to different breeds of sheep, and observe whether the effect was similar in all of them; for it appears that his flock furnished a copious supply of the wool-producing humour, and that the pores through which it passed were constantly full. We acknowledge that these experiments, so far as they proceed, are completely satisfactory, and they convince us that "a great degree of heat produces upon the fleece an effect totally opposite to that which has been generally ascribed to it; that it tends to render the hair coarser instead of finer. Probably it might be easy to ascertain the influence of temperature, even in its extreme degree, if a sheep were conveyed to distant climates, shorn there, and the fleeces compared with those which it had yielded at home. If the manner in which wool is produced were more accurately noticed; if the effects of changing seasons were diligently noted; if care were taken to preserve the fleeces which an individual had afforded in different situations, and under varied treatment, so that they might be compared with each other; and if the staple were either measured, or marked at regular intervals of time, we should ascertain a number of facts respecting the production of wool which we are at present ignorant of, and perhaps might be able to procure it in a much more perfect state. Until our knowledge becomes more perfect, we must consider the influence of temperature as reduced to a single point, which requires only that the shepherd do not unnecessarily expose his flocks to the extremes of heat or of cold, nor to any capricious changes. If he wish to produce the best of fleeces, he must cultivate the breed with sedulous attention, and no longer attempt to apologize for the want of exertion, by complaints that his flocks do not bask themselves upon the sunny mountains of Leon, nor crop their winter herbage on the genial banks of the Douro. The most celebrated flocks of these regions have already dispersed their colonies, without injury to the fleece, over the gentler hills of England, the plains of France and Saxony, through some of the dells of Sweden, to the banks of the Plata, to Southern Africa, and the utmost regions of the Asiatic isles.

The effects of dryness and moisture upon wool, although not frequently distinguished from the general influence of climate, are very considerable, and deserve the close attention of the grazier. No measures, I believe, have been adopted to ascertain the degree in which these causes affect the fleece, and our information respecting them must be deduced from general cases and the prevailing opinion of those, whose employment calls upon them to observe the qualities of wool. There are few persons conversant with this article, who do not perceive when they examine the fleeces of a district, of which one part is much drier than the other, a remarkable difference in those which each submits to their inspection. Upon the lower grounds and in marshy countries, we almost invariably find a sheep producing a longer and coarser pile than its neighbours, which pasture upon the more elevated farms. Sometimes the husbandman of these more dry and healthy spots, prefers a breed of sheep smaller than that which occupies the pasture of the richer farms, one able to roam much more widely in search of food, and to travel with less fatigue to a distant fold, such as yields a fleece so different from that of the heavier flocks, as to admit of no comparison with it, in order to ascertain the precise effect of their damper situation. Yet there are some instances in which we meet with members of the same family in both parts of the district, attended nearly with the same care and maintained almost in equal condition, and observe that the wool of the one is shorter, finer, and lighter than the fleece of the other. Perhaps the dissimilarity may be partly owing to the smaller quantity of food, which the sheep upon thin lands can collect, to the extra fatigue they undergo in order to obtain it, and to the smaller portion of time which they spend in repose and mastication; but after every reasonable allowance is made for circumstances of this kind, there is a considerable proportion of the effect remaining, which we attribute with some confidence to the superior moisture or dryness of the farms where the fleeces were grown. No stapler, I am persuaded, whose opinion is founded upon a long course of observation, will seek among marshes and vapour for fine wool. He expects to find the fleeces of such situations more coarse, hairy and loose than those produced where the rays of the sun fall directly upon the field, and preserve both the fleece and the lodgment of the sheep dry and healthy. The moisture, which so frequently surrounds the summits of the loftier mountains, and rests upon their shoulders, especially if they be exposed to vapour rising from the ocean, is no less deleterious to the staple than the mists of lakes and morasses. On those mountains of Ireland, of Scotland and Norway, which rise from the shores of the Atlantic, and are exposed to its influence, we find fleeces of a very inferior order, when compared with those which the same sort of sheep produce in more sheltered situations; and still farther beneath the value of those, which are procured from the drier sides of the Castilian and Kermanian hills. The sheep of Shetland, producing a small and valuable fleece, although exposed to the influence of moisture in its utmost violence, and the race once diffused over the highlands of Scotland, and which, notwithstanding the cloudiness of its pasture, yielded a wool much superior to that which is now produced there, may be selected as instances to show that too much is attributed to these causes; and it has been supposed that the improvement, visible in the sheep of Cornwall and of the fens in Lincolnshire, evinces that a moist atmosphere is not so incompatible with the growth of good wool as we have stated it to be. But these instances by no means prove that these breeds of sheep upon drier pastures, and attended with greater care than they are at present, would fail to produce a much better fleece than they have done in a moist one; and the improvements which have been adduced would probably have proceeded with greater rapidity, been effected with more ease, and attained a higher degree of excellency, had they been attempted upon flocks in situations better adapted to their nature and to the good qualities of wool. The bad effects of water upon the pile while growing may be owing to the readiness with which it mingles with the yolk, and carries off a quantity of that animal soap, which is so necessary to the good quality and even the existence of the fleece; for if care be taken to prevent this by the skilful application of tar mingled with butter, which act as repellants to the water, the lower part of the staple, which grew after the mixture was applied, contains a sufficient supply of rich and nutritious yolk, and is a much superior sort of wool to those points of the pile, which have been exposed without protection to the dripping wetness of the wintry season.

(*To be continued.*)

COTTON.

Mr. Skinner, Esq.

Dear Sir—In this age of internal improvement, every object calculated to increase and secure individual resource ought to meet attention, and I know of no single production of the earth not necessary for food, so greatly calculated to administer to human industry and of course to comfort and public morals as cotton. This admirable vegetable is at once an ornament to the country where cultivated, and in its manufacture the most light, splendid and cheap, of all articles of human clothing. I have long thought of soliciting a corner of your paper to introduce a few remarks on the culture of cotton, as I am well convinced that it may, and ought to be, cultivated in places far northward from where it can be produced in such abundance, as to be made a staple of commerce. In the latter respect, I did myself for many years in the vicinity of Natchez, cultivate cotton, and it was then and there, while observing the economy of this plant that the idea struck my mind, how remarkably it was calculated to give employment to aged, young, and otherwise inefficient persons, in the middle sections of the United States.

Cotton rises from the earth with a central stem, from which lateral branches are protruded, and one rule may be observed, and will at once decide, whether cotton can or not be cultivated at any given place. It demands about 120 days from planting, to admit the developement of the capsule or production of mature cotton; therefore, if at any place the seasons are devoid of frost 120 days, cotton will ripen. By reference to the excellent thermometrical tables kept at Baltimore by Mr. Lewis Brantz, I find for a series of 8 years, from 1817 to 1824, inclusive, that the summer temperature stood thus:

1817, from March 31st, to October 28th, 213 days, the thermometer ranged above 36 deg.

1818, from April 23rd, to October 22nd, 182 days, the thermometer ranged above 37 deg.

1819, from April 2nd, to October 26th, 207 days, the thermometer ranged above 40 deg.

1820, from April 11th, to October 22nd, 195 days, the thermometer ranged above 33 deg.

1821, from April 20th, to October 20th, 183 days, the thermometer ranged above 32 deg.

1822, from April 3d, to November 4th, 212 days, the thermometer ranged above 39 deg.

1823, from March 22nd, to October 18th, 210 days, the thermometer ranged above 36 deg.

1824, from March 23d, to October 22th, 219 days, the thermometer ranged above 32 deg.

A mean of the proceeding, would give at Baltimore 202 3-5th days exempt from frost, and affords ample time, *for it is probable* the profitable culture of cotton as a staple, and with certainty for ordinary domestic purposes. It is one of the peculiar qualities of cotton, that in its collection from the field, to its manufacture into clothing, the far greatest part of the above labour necessary to carry it through the various processes can in reality be best done by the weaker part of the population, women and children. Again, every process is perfectly consonant to personal cleanliness; no filthy drudgery, but, I was almost tempted to say, elegant amusement, marks every step made in the production of cotton cloth.

In a pretty long and extensive range over the United States, I have found prosperity and independence in such farm houses, where the head of the family had enacted a rigid tariff, and suffered his or her family to purchase nothing which they could themselves manufacture, and was sometime since no little amused, at seeing some southern angry resolutions against our national tariff, where the resolvents came to the appalling conclusion to manufacture for themselves. Thinks I, this denunciation, if carried into effect, will have about the same consequence as must have arisen from the passionate resolutions of a great man I once read of, who being teazed by his creditors, swore in his wrath, "*that he would pay them all off, and never go again in debt to man or mortal.*" It is my sincere hope, that all that can do so, and I have shewn, that all may, at least along the Atlantic coast as far north as Baltimore, oppose the general tariff, by a counteracting one of their own. Let every president or presidentess of a family, by and with the consent of the little republics over which heaven has placed them, plant cotton and flax, and rear the innocent producer of wool, and employ themselves in creative imitation of nature itself, and peace, comfort, health and happiness, will follow industry, and then will the songs of gladness resound along the vales of the United States. This would indeed be a most effectual mode to settle the question about restrictive or non-restrictive statutes, and what is most remarkable, would turn the tariff so lately enacted into a most invaluable national benefaction. Farther, the plan I have suggested would save an immense expenditure of precious breath, that would be much better puffed over the plough, the loom, or cotton gin. But to return to our subject.

There is but little difference in time or manner, of planting Indian corn or cotton, nor could I ever perceive much difference in the requisite soil for the two vegetables. In the climate of Natchez, and on middling soil, about 250 pounds of clean cotton to an acre is the ordinary annual produce. On similar soil, and in the lower parts of New Jersey, Delaware, Maryland and Virginia, the produce would be necessarily more limited; but no doubt would for domestic use, most munificently reward the cultivater in the latter sections of the United States.

In its early growth, cotton is a very tender plant, and particularly liable to utter destruction by very slight frost, but as it advances, becomes more hardy, and continues rising and protruding young branches, flowers and capsules, until arrested by the frosts of autumn. The latter circumstance is regarded as an advantage, as the immature seed vessels are destroyed, and those nearly ripe facilitated in opening. It is to be remarked, that the wool, or what is emphatically called *cotton*, comes to maturity much sooner than does the seed; therefore, the stalk and leaves being killed by frost, does by no means involve the destruction of much cotton apparently unripe.

WILLIAM DARBY.

[What a commentary on the wholesome admonition to our southern brethren, is contained in the following.]

Extract from a friend at Natchez, to the Editor, 21st June, 1828, on some of the agricultural and domestic habits and economy of the southern people.

I was transported in eleven days to this place, where I find all the tropical plants in full bloom in the gardens. The early fruits have disappeared, and plumbs are now in season. Vegetables of all descriptions are abundant; but what surprises me is, with the finest soil and extensive pasture, so little care is taken of it, that butter now sells for 25 and 31 cents a pound; and the greatest portion of supply is brought from the state of New York, and 31 cents per pound paid for it. I was told that forty cows would produce 24 pounds of butter a week!—There must be gross mismanagement some where. I observe the planters daily hauling corn out to their plantations to feed their hands and stock; this comes from up the river a considerable distance.—They, I believe, pay attention to nothing but cotton, and purchase every thing else, instead of raising it. It strikes me as poor economy, when it is observed, that eight oxen are employed to haul a load of corn, which four ought easily to carry; and when too they travel at a snail's gait, to suit the particular convenience of the driver, and indulge him in his lazy disposition.

(From a late English Paper.)

THE BREEDING OF LIVE STOCK.

Some remarkably curious experiments in the breeding of live stock have been lately made in France, the results of which appear to prove that a greater number of either sex may be obtained at the option of the farmer. M. Charles Giron de Buzareinques proposed, at a meeting of the Agricultural Society of Severac, in July, 1826, to divide a flock of sheep into two equal parts, and that a greater number of males or females should be produced at the option of the proprietor. Two of the members of the society offered their flocks for the experiment, and the results have confirmed the author's theory. In the first experiment, in the flock intended to produce the greater number of female lambs, the proportion was as follows: females 84, males 53. In the flock intended to produce the greater number of male lambs, the proportions were, males 80, females 55. The certainty of obtaining similar results was corroborated by other experiments. M. Giron also related experiments made with horses and cattle, in which success, in producing a great difference in the proportion of the sexes, was equally striking. His method is, to keep the animals intended to produce the larger portion of females on the best pasture, and not to allow them to breed as fast as they might; the law of nature appearing to be, that when a race of animals is in circumstances favourable for its increase, nature produces the greatest number of that sex, which, in animals that do not pair, is most efficient for increasing the numbers of the race. But if they are in bad condition, or on stinted pasture, or have already given birth to a numerous offspring, nature, to diminish the increase, produces more males.

Eat and drink with moderation, keep the body open, rise early, take moderate exercise, be cleanly in your person, wash often, bathe frequently, and you may then calculate upon health.

HORTICULTURE.

ON THE CULTURE AND MANUFACTURE OF SILK.

Extracts from the Manual on the Culture and Manufacture of Silk, *prepared and communicated for the American Farmer, with remarks and notes, by a correspondent and practical cultivator.*

(Concluded from p. 139.)

This number will close our extracts from the Manual It has been found necessary to abbreviate considerably the directions for the cultivation of the mulberry; but every thing has been retained that could be of any value to the practical operator.

The Manual enumerates seven varieties of the Red Mulberry (the Common Mulberry—*morus rubra,*) all of which are, perhaps of about equal value for feeding silk worms, and therefore it is not necessary to describe them further than to give their distinguishing feature, which is common to them all, by which they may be known from the white mulberry, as some kinds of both white and red mulberry trees bear purple, dark red, and even black fruit. All mulberry leaves of the red kind have a rough, wrinkly and dull surface; while those of the white kind have a smooth glossy surface. These features of the two kinds, throughout all their varieties, are so distinct, that they may be seen at a glance, at fifty yards distance.

The Manual says—"That the leaves of the native red mulberry tree agree perfectly with silk worms, and yield very good silk, is a fact so well established by the experience of more than a century, that to doubt it would amount to an absurdity." I then must submit to be considered guilty of an "absurdity." I do doubt it, and my doubts are the result of experience. I this summer fed five thousand worms on each, white and red mulberry leaves. Those fed on the white, were vigorous, large and healthy, and produced cocoons averaging 350 to the pound, all of a sulphur color; those fed on the common red mulberry, were feeble, wrinkly, small and unhealthy, and produced cocoons averaging 664 to the pound, of all colors, deep and pale orange, pale sulphur, and white. Both parcels were fed in the same room, and received precisely the same treatment throughout. But, the Manual continues, it appears the red mulberry leaves "do not suit the constitution of French worms." It is difficult to find out what is meant by this remark; for all our silk worms are *French;* and all French, *Italian;* and all Italian, *Chinese!* If red mulberry leaves do not suit the constitution of French worms, therefore, they will not suit those of any other. The fact appears to be, that red mulberry leaves do very well to feed silk worms on, but they are not so profitable as the white. I am under the impression, that many persons have fed worms on the white mulberry, *which bears red or black fruit,* and supposed they were feeding on red mulberry leaves, and hence the great difference of opinion prevailing on the subject. Those who have not examined the subject attentively, might easily fall into this mistake. They have trees which bear black or red fruit, and hence they call them black or red mulberry trees; they feed worms on the leaves, and produce the largest sized cocoons and the finest silk, and report that this is the product of black or red mulberry leaves. But if examined, it would probably be found that the trees were in fact *white mulberry trees bearing black or red fruit.* There are many of this kind of trees in the neighborhood of Annapolis; one particularly in the garrison at that place, the leaves of which are of the finest and best kind of the white mulberry species, while the fruit is *jet black.* The foliage on this tree is remarkable. The leaves are what is called the double kind—that is, they are small in area, but very thick, and occupy the branches in thick clusters almost to the very trunk of the tree. No other tree I ever saw bears so great a weight of foliage, and the worms eat it most greedily, even, (especially at the trial I made of it,) after it had been withered by being gathered four days. Another peculiarity in this kind of trees is, they bear fruit all summer—some ripe and other berries green and just forming, continually.

From what has been said above, it will be inferred that I offer no encouragement to the cultivation of the common red mulberry tree for the purpose of feeding silk worms, but that it can be used till a supply of the white mulberry can be obtained. I shall therefore proceed to give a condensed view of the mode of cultivating the white mulberry, compiled from the Manual, making such remarks as may be suggested by my own experience.

On the Culture of the White Mulberry.

The proper soil for the white mulberry, is dry, sandy or stony. The situation should be high, the leaves produced from low, rich and moist lands, not being so nourishing to the worms—they are too watery. The modes of propagating are by *seed,* grafting, budding, layers, cuttings and suckers. The ripe fruit may be planted in drills, or the seed may be washed out of the pulp and then sown, and covered about a quarter or half an inch deep. The seed will soon vegetate, and in the course of the next season, the plants should be thinned out so that they will stand about a foot apart. If it be desired to plant in the spring, the seed should be washed from the fruit in the following manner: put it in a tub and mash it with the hand, and put water on the mass; stir it round well and pour off the water and floating seed, (those that float not being good,) and continue rubbing the pulp with the hand, and washing the mass in water, till the seed be freed from the pulp. Then spread them out to dry in the shade, when they may be put away for use. The land to be planted in the spring should be well ploughed in the fall, and harrowed and raked fine as soon as the frost is out in the spring, (in Maryland, March is a good time.) The seed may then be planted in drills, say three feet apart, and the seed lying within an inch or two of each other, and covered not over half an inch deep.* The weeds should be kept down, but if they have got so far ahead as to have shaded the young plants from the sun for any length of time, it will not do to take them away, as the plants will then not be able to bear the hot sun. When a year old, the plants may be set out in nursery rows, or transplanted into hedges, if the hedge mode be intended, which the compiler decidedly prefers to any other. At transplanting, cut off some of the roots, especially those which are ragged or decayed, and the tap root, to force out lateral shoots. The tops should also be cut off at six or seven inches from the ground. In France they transplant just after the fall of the leaf in autumn. If the plants do not shoot well after transplanting the first year, in the month of March following cut them over about seven inches from the ground. They should also be watered with diluted barn-yard water. If it is intended to allow the trees to grow to the full size, when they are an inch in diameter, they may be planted out in the field where they are to remain. The mode of transplanting differs in no respect from that pursued with any other fruit or ornamental tree. Proper pruning every spring will have the same effect on the mulberry that it has on other fruit trees, and will therefore be attended to by thrifty culturists.

The 2nd and 3d mode of propagating the mulberry, it is deemed unnecessary to describe—every farmer knows how to graft and bud fruit trees, and the mode is the same with mulberry. And as *laying* is entirely unnecessary with this tree, it is also passed over.

The 5th mode, by cuttings, is a very good process. Take the cuttings from upright shoots, as they produce more straight and handsome trees, than those taken from horizontal branches. They should be of the last summer's growth, and from six to fifteen inches long. Plant them in rows, in shady borders, early in the spring, about two-thirds their length in the ground, and in dry weather let them be watered. At a year old, they will be fit to transplant in the manner above described.

The 6th, by suckers, is very simple. Separate the suckers early in the spring, with some roots attached, and plant them either in nursery rows, or in the field where they are intended to stand. It is essential to the quick growth of young mulberry trees that the ground around them should be fine, that the young roots may not be obstructed. Slugs and snails are very destructive to mulberry plants, and should be guarded against; for which purpose surround the beds with soot, unslacked lime or ashes, after every rain—the soot must not be put on the beds with the plants.

The compiler takes leave here to recommend the cultivation of the white mulberry *in hedges or rows,* as preferable to all other modes. It makes *an excellent fence;* if planted around fields, and if the whole field be occupied with it, the ease and safety with which the leaves can be gathered, compared with the labour and danger of gathering them from large trees, are important considerations; and it is believed that an acre of land will produce as much foliage in this mode as in any other. To form hedges for fences, plant the young trees, those from cuttings, seedlings, or suckers, along the rail fence, and as they grow, wattle them between the rails, and when they begin to get too high, cut off the tops. If it be wished to occupy the whole field with rows, the same process may be pursued, except wattling them through the rails. Let the rows be from 4 to 6 feet apart, and keep down the weeds.

There are several varieties of white mulberry trees, two of which bear white berries, one red, and another black. There are two varieties in the leaf, that of the one of which is deeply indented or lobed, and that of the other merely notched, with a small sawtooth indentation. The upper surface of this leaf is glossy, and at a little distance it bears some resemblance to the leaf of the Lombardy poplar. (The several kinds of this variety are the proper ones for silk worms.) There are six or seven different kinds of this variety, some bearing white, some black, and others red berries, and all proper for silk worms. Those bearing the small thick leaf, called double leaf, of a dark green, shining colour, are best.

It has been ascertained in Connecticut, that when the seed is sown broad-cast, and the young plant mown down to feed the worms, the roots soon die. This mode, therefore, will not be profitable.

The Laboratory.

My laboratory, says Dandolo, is constructed to contain twenty ounces of eggs of silk worms; it is 30 feet wide, 77 long, 12 feet high, and when reckoned to the top of the roof, 21 feet high. There are six rows of tables or wicker trays, about two feet six inches in width each, placed two and two, with four passages between them, each three feet wide Posts are driven in between the trays, and strips of wood are fastened to the posts horizontally, to support the trays, between which there is a space of five inches and a half, to allow the air to pass freely.

There are 13 unglazed windows, with Venetian shutters outside, and paper window frames inside; under each window, near the floor, ventilators, or square apertures of about 13 inches, that they may be closed by a neatly fitted sliding pannel, so as to permit the air to circulate, and blow over the whole floor. When the air is not wanted, the paper frames may be closed. The Venetian shutters may be opened or shut, at will. When the air is still, and the temperature of the interior and exterior is nearly equal, all the window frames may be opened, and the Venetian shutters must be closed.

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*I planted upwards of an acre of ground this spring in drills, but in consequence of planting it too deep, and a heavy rain washing more earth into the drills, not a single seed vegetated, while another parcel, gently raked in, on a seed bed, came up and grew very well.—Even these, however, were six weeks before they came up.

There are eight ventilators, in two lines, in the floor and in the ceiling, placed perpendicularly, opposite to one another, in the centre of the passages between the hurdles or trays. They have sliding pannels made of thick glass, to close them, and to admit light from above. As the air of the floor ventilators ascends, and that of the ceiling ventilators descends, it must pass through the trays. There are also, other six ventilators, made in the floor, to communicate with the rooms beneath. Three of the thirteen windows are at the end of the house; and at the opposite end, are three doors, constructed so as to admit more or less air, as may be required. These doors open into another hall, 36 feet long and 30 wide, which forms a continuation of the large laboratory, and contains trays sufficiently raised to facilitate the care of the worms. In this hall there are six windows, and six ventilators under them, nearly on a level with the floor, and, also, four ventilators in the ceiling. There are six fireplaces in the great laboratory, one in each angle, and one on each side of the centre, and a large stove in the middle; glass oil burners, that give no smoke, are used to give light at night. Between the hall and the great laboratory, there is a small room, having two large doors; the one communicating with the laboratory, the other with the hall. In the centre of the floor, there is a large square opening, which communicates with the lower part of the building. This is closed with a wooden folding door; this aperture is used for throwing down the litter and rubbish of the laboratory, and for admitting mulberry leaves, which can be drawn up by a hand-pulley. Such is the construction of his laboratory, in which he places the worms after the fourth casting or moulting.

The above particular description of a very large laboratory, will be valeable to those who may hereafter engage in the business upon an extensive scale. It will be seen that the great objects aimed at, are convenience, the preservation of a proper temperature, and the free circulation of the air in the department, and the American cultivator must attend to these, as *cardinal points*, whatever may be the dimensions of the building or apartment in which the worms are reared.[*]

All buildings are proper for receiving the silk worms, provided that, in proportion to their sizes, there be one or more fire-places, two or more ventilators in the ceiling, on a level with the floor, and one or more windows, by which light may be admitted, and yet not sunshine.

In the United States, the house erected expressly for the purpose of rearing silk worms, should be placed in the coolest and most airy situation attainable; and in the shade of trees, if possible, because it is always in our power to increase the heat of the apartment, when necessary, by means of a stove or open fire-place; but it is not so easy to guard against a sudden increase of heat in the weather, and which may nearly defeat the labors of the season, if it should occur in the fifth age, when the worms are nearly done eating, as will be seen hereafter.

The apparatus of the Rev. Mr. Swayne is to be recommended, on account of the small space occupied by it, the neatness in which it enables persons using it, to keep the apartment, and the ease with which the caterpillars can be fed, and the litter removed. It is particularly valuable to those who are restrained in room.

"This apparatus consists of a wooden frame, four feet two inches high, each side sixteen inches and a half wide, divided into eight partitions, by small pieces of wood, which form grooves, in which the slides run, and are thus easily thurst in, or drawn out of the frame. The upper slide is of paper only, and designed to receive the worms as soon as hatched: the two next are of catgut, the threads about one-tenth of an inch distant from one another; these are for the insects, when a little advanced in size; the four lower ones, are of wicker work, the openings through which the dung is to fall being about a quarter of an inch square. Under each of these, as well as under those of catgut, are slides made of paper, to prevent the dung of the worms falling on those feeding below them. Mr. Swayne afterwards found that netting may be substituted with advantage, in the room of wicker bottoms. The meshes of the netting were about half an inch square.

"The caterpillars are to be kept in the second and third drawers, until their dug and litter do not readily fall through, and then to be removed to the drawers with wicker bottoms and fed thereon, till they shew symptoms of being about to spin. Each wicker drawer will afford sufficient room for five hundred worms, when grown to their full size."

In order to give room for an increased stock of caterpillars, spare drawers should be made to fit the three upper apartments with wicker bottoms, (or in preference, with bottoms of split rattans,) which may be used for full grown worms.

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[*] I have heretofore observed, that I have experienced no injury from a high degree of temperature. In fact, I have always been unable to perceive that it had any effect upon my worms. The mercury has ranged between 72 deg. and 90 deg. in my laboratory this summer, and sometimes the changes have been quite sudden from one extreme to the other, and yet I was unable to discover the slightest effect upon the worms. Experience has fully confirmed me in the opinion, that the silk worm is not so delicate an insect as writers have endeavored to make them appear.

PLUMS—GRAPES.

How to make sure of having Plums—Hints for preserving Grapes.

Mr. Skinner: *Columbia, Pa. July 21st*, 1828.

If your correspondent H. B. of Dayton, Ohio, will plant all his plum trees in a lot by themselves, and either constantly keep hogs in the lot, sufficient to eat all the fallen fruit, or keep the ground perfectly free from grass and weeds, tramping the ground hard, and frequently sprinkling it with salt water or brine, sweeping the fallen fruit together, burning and burying it four or five feet deep, or destroying it in any way so as to prevent the worms from entering the ground, and to have no other fruit trees growing within 300 yards from the lot containing the plums, I will venture to predict that in 4 or 6 years his plum trees will bear more uniformly than apple trees; he ought not, however, to make the experiment with *two or three* trees, as it will undoubtedly fail on a small scale. The curculios from the neighboring trees will be sufficient to destroy the fruit on a few trees; turkies, ducks and fowls in general, will assist in destroying insects, as also birds, toad frogs, &c. &c. and ought never be debarred the liberty of ranging in an orchard.

As the mildew is the most destructive enemy to our choice variety of *foreign* grapes, and as the time is at hand when it usually makes its appearance, (being in the hot moist weather of August,) I will mention a remark communicated to me, by (I may well say) the most experienced horticulturist our country can boast of, Mr. Wm. Prince of Flushing, Long Island, New York. he states that, by the use of powdered sulphur blown on the leaves and fruit they have become complete masters of mildew at Boston, and by the experiments of a skilful man here, he states his conviction that vines which are trained *lower than ten feet*, although subject to the mildew, *will not* be subject to it if trained to a greater height, on that part which rises above ten feet.

Mr. Prince has now a collection of above *four hundred* kinds, planted out as *specimen* vines, superior to any collection even in Europe in extent of varieties; he has lately published a short treatise on horticulture, &c. which ought to be in the possession of every lover of choice fruits.

Respectfully yours,

J. B. G.

Has the *Aracacha* been cultivated in the United States, where and with what success?

[Yes—by Mr. Prince, the gentleman spoken of by J. B. G.]

CULTURE OF THE VINE.

Valuable Practical Information and Hints on the Culture of the Vine.

From the author of "Coxe on Fruit Trees."

J. S. Skinner, Esq. *Burlington, July* 22, 1828.

Sir,—The cultivation of the vine has become so important to the health, morals and prosperity of our country, that I cheerfully comply with the wishes of some respectable friends, by communicating to you the result of numerous experiments, made under my own observation, in engrafting various kinds of delicate foreign grapes and superior varieties of our domestic grapes on the more vigorous stocks of cultivated vines, or on the native vines of our fields, or transplanted native vines, removed from our hedge rows into our gardens at the moment of engrafting. The process is extremely simple, and as far as I can learn from inspection of the most approved English and French writers, and from inquiry of intelligent foreigners, is not practised in Europe. It is performed by inserting a scion, of the usual size for planting, in the root or stock, under the surface of the earth, covering it with the earth, raised round the stock high enough to protect the scion, which is about six inches long, with two eyes only, the upper one to be even with the top of the little hillock raised around the plant. No clay or composition is necessary. The stock must be at least one inch in diameter, at one or two inches above the crown of the plant, when bared to the first roots, it must be sawed off at that point. The stock is to be carefully split, after the loose bark is scraped off, and if necessary opened by a wedge; the scion, when firmly fixed, will be retained in its place by the pressure of the stock, after the wedge has been withdrawn or cut off. The time for engrafting is the same as for the apple—about the 1st to the 10th April in this state. In two or three weeks the buds will sprout. One only must be permitted to grow; it must be trained to a stake, and kept pruned of lateral shoots. In a good soil it will grow ten to twelve feet the first year; after this it may be cut down to two or three eyes, or trained at greater length to a trellis, according to its strength. They invariably bear fruit the second year, and frequently will produce one or more bunches the first year. This, however, should not be permitted, except from a wish to ascertain the quality of the fruit. It is now about six years since the first attempt of an intelligent neighbour in this mode of engrafting was exhibited to me, after repeated failures of the ordinary mode of engrafting above the surface, with the aid of clay and composition. I had experienced similar failures in my own experiments, owing, I presume, to the greater flow of sap in our climate. I have now growths of at least ten feet from grafts of this spring, exhibiting a luxuriant growth of a single bunch of grapes. When the stock is sufficiently large, two scions may be inserted, and if successful, may be reduced to a single stock, or one of them may be laid down by training, about six inches under the surface, to form another vine, which the second year will be nearly equal in strength and productiveness to the parent vine. From the facility with which this operation may be performed, and the short interruption it creates in the bearing, it will be easy to change any number of vines from unproductive and inferior kinds, to such as may be adapted to the soil, climate and object of the cultivator. Foreign and tender kinds may be speedily acclimated, and an early diffusion of the finer kinds through our extensive country may be accomplished, wherever native stocks are to be found.

I believe this mode of engrafting will be new to the greater portion of your readers; it certainly is unnoticed by the Abbé Rozier, by La Nouvelle Quintinye, by Miller and Forsyth, all of whom I have consulted—and a highly intelligent friend, a native of France, possessing large estates in that country and in the United States, assured me, after careful inspection of my vines, that it was perfectly new to him, and would encourage him to introduce it in his extensive plans of improvement, to which he is devoting much of his ample means.

I am, respectfully and truly,
Your friend and obed't serv't,
WM. COXE.

ONIONS.

Mr. Skinner: *Sampson, N. C. July 22d,* 1828.

Dear Sir—You sometimes complain that your friends are negligent in communicating to you the success of the seeds, &c. which you have sent them. Tis certainly due to you, to inform you what has been the result of all such experiments, and therefore I make this communication.

The onion seed (from the Island of Azores,) which you sent me a year since, were planted in the latter part of July. They came up well, but were soon after attacked by some insect which destroyed all the plants but three. They were well taken care of, and the product gathered about a month since. One seed produced one onion only, which weighed after the top was cut off, 24 ounces; one other seed produced three onions which weighed respectively 15, 16 and 17 ounces; the third seed produced three unions, one of which weighed 17 ounces, the other two, 18 ounces each; making 7 lbs. 13 oz produced by the three seeds. They were planted in a *very* light sandy soil, well manured. The onion is very mild, and well flavored.

Very respectfully, yours,
WM. B. MEARES.

LADIES' DEPARTMENT.

THE BUTTERFLY--By Bernard Barton.

Beautiful creature, I have been
  Moments uncounted watching thee,
Now flitting round the foliage green
  Of yonder dark embowering tree,
And now again in frolic glee,
  Hovering around those opening flowers,
Happy as nature's child should be,
  Born to enjoy her loveliest bowers.

And I have gazed upon thy flight
  Till feelings I can scarce define,
Awaken'd by so fair a sight,
  With desultory thoughts combine
Not to induce me to repine,
  Or envy thee thy happiness;
But from a lot so bright as thine
  To borrow musings born to bless.

For unto him whose spirit reads
  Creation with a Christian's eye
Each happy living creature pleads
  The cause of Him who reigns on high,
Who spann'd the earth and arch'd the sky,
  Gave life to every thing that lives,
And still delighteth to supply
  With happiness the life he gives.

This truth may boast but little worth,
  Enforc'd by rhetoric's frigid powers;
But when it has its quiet birth
  In contemplation's silent hours,
Where summer's brightly-peopled bowers
  Bring home its teachings to the heart;
Then birds and insects, shrubs and flowers,
  Its touching eloquence impart.

Then thou, delightful creature, who
  Wert yesterday a sightless worm,
Becom'st a symbol fair and true
  Of hopes that own no mortal term:
In thy proud change we see the germ
  Of man's sublimer destiny,
While holiest oracles confirm
  The type of immortality.

A change more glorious far than thine,
  E'en I thy fellow worm, may know,
When this exhausted frame of mine
  Down to its kindred dust shall go;
When the anxiety and wo
  Of being's embryo state shall seem
Like phantoms flitting to and fro,
  In some confused and feverish dream.

For thee, who flittest gaily now,
  With all thy nature asks, supplied,
A few brief summer days, and thou
  No more amid these haunts shall glide,
As hope's fair herald—in thy pride
  The sylph-like genius of the scene,
But, sunk in deep oblivion's tide,
  Shall be—as thou hadst never been.

While men's immortal part, when time
  Shall set the chainless spirit free,
May seek a brighter, happier clime,
  Than fancy e'er could fain for thee.
Though bright her fairy bowers may be,
  Yet brief as bright their beauties fade,
And sad experience mourns to see
  Each good hope trusted in decayed.

But in those regions, calm and pure,
  To which our holiest wishes cling,
Joys that eternally endure
  Shall bloom in everlasting spring.
There seraph harps of golden string,
  Are vocal to the great I AM;
And souls redeem'd, their anthems sing,
  Of grateful praises to the Lamb.

Shall they who here anticipate
  Through faith's strong vision eagle-eyed,
Those joys immortal that await
  Angelic spirits purified;
Shall such, however deeply tried,
  E'er cast their glorious hopes away?
Oh! be those their heaven-ward guide,
  Their steadiest anchor, and their stay.

Though many a flower that sweetly deck'd
  Life's early path but bloomed to fade;
Though sorrow, poverty, neglect,
  Now seem to wrap their souls in shade,
Let those look upward undismayed,
  From thorny paths in anguish trod,
To regions where, in light arrayed,
  Still dwells their Saviour and their God.

Sport on, then, thou lovely summer fly,
  With whom began my votive strain;
Yet purer joys their hopes supply
  Who, by faith's alchemy, obtain
Comfort in sorrow, bliss in pain,
  Freedom in bondage, light in gloom,
Through earthly losses heavenly gain,
  And life immortal through the tomb.

Eggs rot in consequence of the yolk coming in contact with the shell. Frequent turning prevents this, and preserves their vitality.

RULES TO BE OBSERVED IN PICKLING.

Always use stone jars for all sorts of pickles that require hot pickle to them. The first charge is the least, for these not only last longer, but keep the pickle better; for vinegar and salt will penetrate through all earthen vessels; stone and glass are the only things to keep pickles in. Be sure never to put your hands in to take pickles out, it will soon spoil them. The best method is, to every pot tie a wooden spoon, full of little holes, to take the pickles out with.

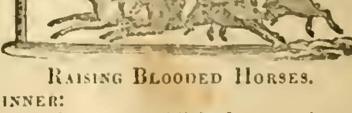
TO PICKLE WALNUTS.

Take large full-grown nuts, before they are hard; lay them in salt and water; let them lie two days, then shift them to fresh water; let them lie two days longer; then shift them again and let them lie three days; take them out of the water, and put them in a pickling jar. When the jar is half full, put in a large onion stuck with cloves. To a hundred of walnuts, put in half a pint of mustard seed, a quarter of an ounce of mace, half an ounce of black pepper, half an ounce of alspice, six bay leaves, and a stick of horse radish: then fill the jar, and pour boiling vinegar over them. Cover them with a plate, and when they are cold, tie them down with a bladder and leather, and they will be fit to eat in two or three months. The next year, if any remains, boil up the vinegar again, and skim it; when cold, pour it over the walnuts. This is by much the best pickle for use; therefore you may add more vinegar to it when you please. If you pickle a great many walnuts, and eat them fast, make pickle for a hundred or two; the rest keep in a strong brine of salt and water, boiled till it will bear an egg, and as the pot empties, fill them up with those in the salt and water. Take care they are covered with pickle.

TO PICKLE MUSHROOMS.

Take button mushrooms, rub them, clean with flannel and salt, throw some salt over them, and lay them in a stewpan with mace and pepper; while the liquor comes out, shake them well, and continue to do so till the whole is dried into them again; then pour in as much vinegar as will cover them; give the whole one warm, and turn them into a jar. Prepared in this manner, mushrooms will keep two years, and are very excellent.

SPORTING OLIO.



Raising Blooded Horses.

Mr. Skinner:

You sometime ago published at my instance, the mode of raising colts as pursued by Wm. E. Brodnaxe, of Brunswick county, Va. In my prefatory remarks, I stated that this gentleman had made a handsome fortune at the business, and that the sales of his colts and fillies during a period of thirty-odd years, had averaged from 400 to $500. An inquiry was afterwards made by you to me, whether those sales were per colt, or per year. I will now answer your inquiry by using Mr. B's own words in a letter to me.

"My opinion respecting blood horses and the *mode of raising them,* is limited to my own *experience,* keeping no British stud books or calendars, which experience has been the result of thirty-odd years practice and success, during which time I have been raising under a system of management, stated in my stud book, a copy of which I have already furnished you, (see American Farmer, vol. 9, No. 45, for this mode of management) and during which time all the colts and fillies sold by me, I think would average from 400 to $500 *a head.*"

Author of "Annals of the Turf."

(From the Milton Gazette.)

A WONDERFUL DISCOVERY RECENTLY MADE IN AN OLD HORSE'S AGE!!!

> "'Tis to the pen and press we mortals owe,
> All we believe, and almost all we know."

Mr. Editor:

Sir—Since the age of that noble animal, the horse, after a certain period of life, (that is to say,) after the marks in his *incisors* and *cuspidati* are entirely obliterated, to be able to ascertain his age, with any tolerable degree of certainty, appears to the generality of "*horse age judges,*" to be a subject of very much uncertainty. I now take the liberty of laying before the public through the medium of your paper, an infallible method, (subject to very few exceptions,) of ascertaining it in such a manner, after a horse loses his marks, or after he arrives to the age of 9 years or over; so that any person concerned in horses, even of the meanest capacity, may not be imposed upon in a horse's age, from 9 years of age and over, more than 3 years at farthest, until the animal arrives at the age of twenty years and upwards, *by just feeling the submaxillary bone, or the bone of the lower jaw.*

This method I discovered, by making many anatomical observations on the skulls of dead horses and repeated dissections. In order, therefore, to elucidate the above, I must in the first place beg leave to remark: that the submaxillary bone, or the the lower jaw bone of all young horses, about 4 or 5 years of age, immediately above the *bifurcation,* is invariably thick and very round at the bottom; the cavity of said bone being very small, contains a good deal of marrow, and generally continues in this state until the animal arrives at that period which is generally termed an "aged horse," or until the animal acquires his full size in height or thickness; or *according to sporting language, is completely furnished,* with very little variation. But after this period, the cavity as aforesaid becomes larger, and more marrow is contained therein. Hence the submaxillary bone becomes thinner and sharper a little above the *bifurcation.*

This indelible mark may always be observed in a small degree in horses about 8 years of age; but at 9 years old it is still more perceptible. It continues growing a little thinner and sharper at the bottom, until 12 years of age. From thence until 15, it is still thinner, and about as sharp as the back of a case knife near the handle. From this period until the ages of 18, 19, 20 and upwards, it is exceedingly so; and is as sharp in many subjects as the dull edge of that instrument.

Rules.

1st. Put your three fingers about half an inch or an inch immediately above the bifurcation, and grasp the submaxillary bone, or the lower jaw bone. If it is thick at the sides and very round indeed at the bottom, the animal is most certainly under 9 years of age.

2nd. If the bone is not very thick, and it is perceivably not very round at the bottom, he is from 9 to 12 years old, and so on. From 12 to 15 the bone is sharper at bottom and thinner at the sides, the bottom is generally as sharp as the back of a case knife; from 15 to 18, 19, 20 and upwards, without many exceptions, the bone, when divested of its integuments, is as sharp as the dull edge of that instrument.

3rd. Allowances must always be made between heavy, large western or wagon horses, or carriage horses, and fine blooded ones. By practising and strictly attending to the above rules, upon all descriptions of horses, the performer in a little time, will become very accurate in the accomplishment of his desires, more especially if he attentively observes the lower jaw bone of dead horses.

June 22, 1828. Boscaivane.

The King's Fishing Apparatus.

The case is covered with the best crimson morocco leather, and is three feet long, nine inches broad, and three inches deep; the edges sloped, with double borders of gold ornaments, representing alternately a salmon and a basket. The outer border forms a rich gold wreath of the rose, thistle, and shamrock, intertwined by oak leaves and acorns. The centre of the lid presents a splendid gold impression of the Royal arms of Great Britain and Ireland. The case is fastened with one of Bramah's patent locks, handles, eyes, &c. all double guilt. The interior of the case is lined throughout with the finest Genoese sky blue velvet, the inner part of the lid tufted. The books (as they are termed) for angling and fly-fishing are the most chaste and beautiful that can be imagined. The angling book is covered with Genoese crimson velvet, the lock surmounted by a diadem of solid gold; the top ornamented with the Royal arms of the united kingdom richly worked and emblazoned, and beneath the shield the rose, thistle and shamrock. Within the book are an infinite variety of artificial baits of superior imitation, together with angling rod, landing stick, &c. richly carved with royal emblematical devices. The fly book on the outside assimilates to the other, with this difference, that the lid is surmounted with a double G R., enclosed in a semicircle of a richly embroidered wreath, representing the rose, shamrock and thistle. This book is full of flies, which, although artificial, almost equal the natural insects in imitation.

[*London pa.*

French Velocipede.

On Monday morning a number of persons, among whom were several of distinction, repaired to St. John's wood, for the purpose of seeing the ground re-measured over which M. Grandserre, the celebrated French Velocipede, undertook to run on Thursday last twenty miles in two hours and twelve minutes. At the conclusion of the last round two hours and fifteen minutes and thirty seconds had expired, and the match was considered to be lost; but on proceeding over the ground with a measuring wheel, it was ascertained that the distance was 1,365 yards, being forty-five yards above the three quarters of a mile, consequently M. Grandserre must have run over, at the conclusion of the twenty-seventh round, 36,855 yards, which is twenty miles, three quarters and 335 yards. On reference to the time keeper's account it appeared that the Velocipede was five minutes going the last round, and at its conclusion only three minutes and thirty seconds having expired over the given time, it was accordingly decided that M. Grandserre had run upwards of twenty miles in the two hours and twelve minutes. [*London pa.*

THE FARMER.

Baltimore, Friday, August 8, 1828.

☞Grapes.—As the period for the ripening of native grapes throughout our country is approaching, we are requested by Mr. Prince, proprietor of the Linnæan Botanical Garden, near New York, to state, that it will afford him much satisfaction to receive from persons residing in any of the southern and western states, a few seeds, by mail, of each of the varieties of native grapes that grow in their respective localities; which favours will be promptly reciprocated by a return of seeds of grapes now growing in his establishment, or of such other plants as may be acceptable. He is particularly desirous to obtain seeds of the *Vitis riparia*, or Sweet-scented Grape of the west, as it is dioecous, and but one sex is now cultivated in our gardens. Also, of all the Missouri, Arkansas, and Louisiana grapes.

Latest from Europe.

The ship Mary and Susan, Capt. Candler, from Greenock, has brought papers of that place to the 22d June, containing London dates to the 19th.—Their contents were not of particular interest.

Russia and Turkey.

Letters from Vienna to the 8th June state, that at the last date from the Russian army, there had been no fighting, except in the prosecution of the siege of Brailaw, and that it was believed the invading army would not pass the boundaries of Wallachia and Moldavia without express orders from the emperor. This is confirmatory of the reports of concession on the part of the Russians.

It was expected that the passage of the Danube would be effected by the end of May.

Brailaw was invested by a corps of 18,000 Russians, and the trenches were opened on the 21st May, very near the fortress, for the purpose of making a breach. The Turkish garrison had set fire to the suburbs. The Russian battalions were ordered to drive the Turks out of them: they penetrated into the streets which were choked up with rubbish, and charged the Turks at the point of the bayonet, while the fortress fired at them with mortars. About 100 Turks were killed and taken prisoners.

It was reported that a number of Cossacks had been brought prisoners into Brailaw, and by the Pacha's orders hanged on the walls of the fortress, in sight of the Russian army. The soldiers were enraged. It was feared the taking of Brailaw would be attended with a dreadful massacre.

Berlin, June 9.

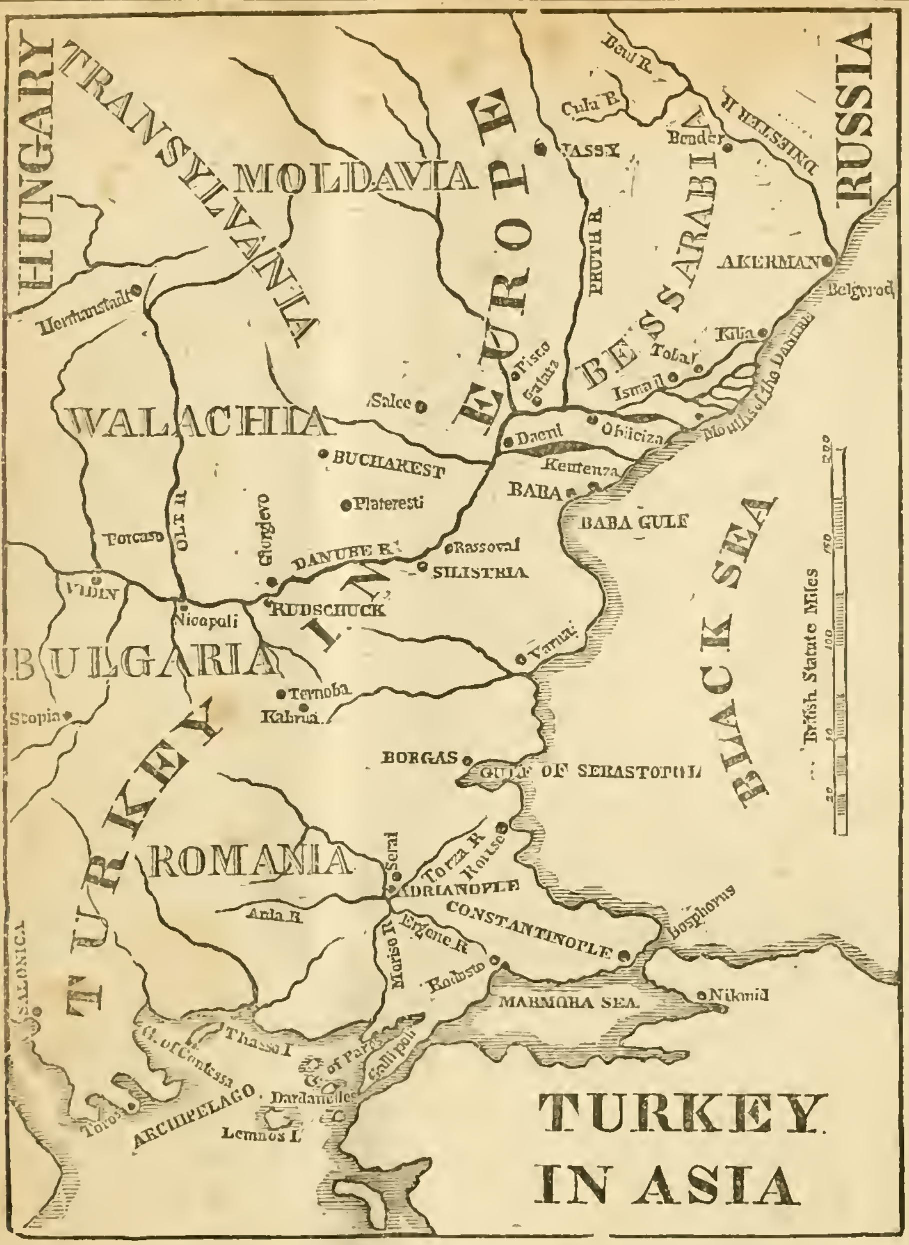
On the 15th of May, one of the suburbs of Brailaw, the possession of which was necessary to commence the siege, was taken by storm, after a vigorous but short resistance. The place was then invested; but the high water of the Danube, and the delay in bringing materials from the distance of 50 wersts, would not permit the second parallel to be opened till the night of the 25th. Several batteries were already erected; and if we judge by the effects of their fire, we may expect a speedy and decisive result. The Grand Duke Michael directs the siege. The Emperor went to Brailaw on the 20th, and remained till the 25th in the camp. The overflowing of the Danube has been so great that it has been absolutely impossible to pass the river at those points near Ismael, where we wished to cross it, and where a large corps is assembled ready to advance into Bulgaria, and to prosecute its operations with rapidity on the right bank of the river. The Emperor has taken advantage of the interval to pass three days at Bender and at Odessa with the Empress.

THE THEATRE OF WAR.

[We have been at some pains to obtain the most authentic accounts we have met with in the English and American journals, relating both directly and indirectly to the scene of hostilities, and the regions and nations bordering upon it. From these we have made such selections as we considered most appropriate, in presenting a general view of the whole.]

[*New York Statesman.*

The River Pruth.—The Russian army, before the breaking out of hostilities, lay encamped in the vicinity of this river, which constitutes the northwestern boundary of Moldavia. The distance from this position to Constantinople, is about 500 miles. The Pruth, after separating for a considerable space Moldavia from Poland, makes a turn to the south, and continues a southerly course till it falls into the Danube between Galatz and Ismael—and divides the principality of Moldavia, in its length, into two almost equal parts. Both Wallachia and Moldavia are without Turkish garrisons, being governed by their own hospodars, who are tributaries to the Porte. Wallachia is separated by



the Danube from Bulgaria, where properly the Turkish empire begins, and where the first Turkish forces will probably be met.

The Danube.—The distance of this river from the Pruth, by the route taken by the Russians, is about fifteen days march for their army, if they could proceed without interruption.

All the strong places belonging to Turkey are not on the right bank of the Danube. There are on the left bank, Tarnow, opposite Nicopolis—Giorgievo, the *tete de pont* of Rudschuck, a place which, containing 18,000 inhabitants, sustained, in 1790, a regular siege by the Prince Coburg—-Brailaw, which contains 28,000 inhabitants, the fortifications of which were demolished in 1809, but rebuilt in 1820; 7000 Russians perished in an assault upon it—Galatz, an important point between the Pruth and the Danube.

Plan of the Campaign.—The Russian army under Count Wittgenstein, amounts to about one hundred and fifty thousand men, and is animated with a martial spirit, and a strong dislike of the Turks. At the present crisis, it is probable that no event could have happened that would have been so agreeable to them as the breaking out of the present war.

The four fortresses on the Danube above mentioned, are to be either attacked or masked, whilst the grand Russian army follows the line of the coast, penetrating between Varna, which it will be sufficient to mask, and the Thermopylæ of Schumla, which it is not necessary to pass. The greatest obstacle in this direction is Bazardjik. This town, situated upon low ground, and defended by some square towers and a bad earth rampart, cannot make a long resistance; and the army will reach, by Pravades, the Gulf of Bourges. The fleet will be in waiting there; and a new line of operations will be entered upon, which, leading to the forty churches, will at once turn Schumla and Adrianople.—Partial embarkations upon the coasts of Asia and Europe, will open the Bosphorus and the road to Constantinople.

If the Russians should design to go directly to Constantinople, the Danube will be crossed, it is supposed, between Kirskova and Rudschuck, (both fortified places,) which will be masked—for the Russians have learned, by experience, not to lose time in laying siege to Turkish fortresses—and the march be pushed forward to Shimula, the position that commands the passes of Mounts Hæmus, and where the Turkish force, amounting, by computation, to eighty thousand men, independently of thirty thousand scattered along the fortresses on the banks of the Danube, are concentrated. Here must be the battle. The invaders, with their left resting on the Gulf of Varna, accessible to their fleet from Sebastopol, in the Crimea, distant about three hundred miles—and therefore assured of supplies and succour of all sort, will fight with every advantage. The Turks, with the conviction that their position is the key to the passes in the mountains, which, once carried, opens the way to the capital; and with the advantage of intimate knowledge of those passes, will, if animated by any thing like the pristine zeal of the Mahometans, and directed by even a moderate degree of skill in the art of war, be enabled to make a desperate defence.

Erratum.—Under the Sporting Olio of last week, 6th line, for "Irish Althæ dogs," read Irish Setter dogs.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 182 hhds. Maryland, and 71 hhds. Ohio.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-street, 5.00 *a* 5.12½; city mills, 4.87; Susquehanna, 4.75—Corn Meal, per bbl. 2.50—Grain, best red wheat, 1.00 *a* 1.05—best white wheat, 1.10 *a* 1.25—ordinary to good, .85 *a* .95--Corn, .33 *a* .35—Rye, .45—Oats, bush. .22 *a* .24—Beans, 1.50—Peas, .60 *a* .75—Clover seed, 4.25—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $220--Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—Bacon, hams, Balt. cured, .11 *a* 12½; do. E. Shore, .14—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Sales of red wheat yesterday at 1.03, second quality; sales of Virginia corn at 34 cts.; do. Maryland white, first quality, at 35 cts.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

(Continued from p. 163.)

Some of the best qualities of wool, especially those of the finer kind of fleeces, have been attributed to the influence of pasture. Large and open downs, which receive but little attention from the farmer, where the sheep with great labour can procure only a limited supply of food, have been often represented as absolutely necessary to the production of that soft and attenuated pile, which is universally admired. The finest fleeces which have been collected in our native country, have generally been obtained from the hills of moderate elevation, and from soils, which cannot boast of being enriched by the fertilizing collections of the farmer's yard. They are the produce of wide wastes, where the individual rights are not distinguishable, but so blended as to form a common property and produce an indiscriminate advantage. Such fleeces, the produce of exhausted pasture and of meagre animals, are commonly much smaller, lighter and finer than those we obtain from lower lands and more highly fed carcasses. It appears that the food which a sheep procures is directed by the hand of the Universal Benefactor chiefly to the supplying of those juices, which nourish it, and produce that plumpness of muscle so desirable in quadrupeds of this description; that the formation of its coat is only a secondary object in the process of nature, and the humour suitable to this purpose is not secreted until that which is essential to the existence and the health of the animal has been produced. Hence it is that the fleeces furnished by the commons, which have been procured from half-starved sheep, are uniformly small and light; that their pile is [illegible] thin, weak and short, that the [illegible] of it is few and less mellow than it should be, and exhibits symptoms of improvement near the botton of the staple. But the sheep grazing in richerpastures, where they easily obtain food, which bot satisfies their appetites and furnishes a surplus of he juices necessary to their health, yield fleeces of longer pile, of greater weight and superior conition, less adapted most certainly to many purposes of the woollen manufacture; but considered merely as wool afforded by a particular breed of heep, possess an intrinsic value much superior tohe starved pile. The idea that dry fallows, commes and hungry soils, were necessary to the produ ion of good wool, arose in the earlier ages of the nanufacture, when the constitution of the sheep ws little attended to, and men attributed to the l d that which is really the effect of the breed or fa ly of the sheep; and it is maintained even now by ome, who do not discriminate between the diff ent races, which stock the country, so readily between the soils which compose it. The state the Spanish flocks and the management of ther y shepherds, whose superior skill has been un rsally allowed, were often adduced as instances, ich sufficiently prove the impossibility of growi the finest wool upon luxuriant pastures. It was served that these were divided into two kinds, t travelling and the stationary ones; that the atter, which continued through the whole ye upon the plains and the best lands of their nat country, afforded a wool distinguished neither its fineness nor other good qualities; while those ich were compelled to travel from the lower gr ds to mountainous provinces, and driven to cro e vegetables of the loftiest summits, upon wh they spent the summer, returning to their fo r folds as the winter approached, yielded a flee f the utmost beauty, and surprisingly adapted to the fabrication of woollen cloth. Some stedfastly maintain that this superiority of the staple, is owing to the fatigue which the sheep are compelled to undergo; to the climature and the herbage of the mountains upon which they spend the hottest season; that if they had continued on the plains, their fleeces would not have been distinguished from those of the stationary flocks; and that if these latter had ascended the mountains, and been managed as the others were, they also would have afforded a superior pile. Yet these gentlemen mention no instance of such an exchange of treatment; they describe no experiment made with a view of ascertaining its effects. They forget that there are as certainly different breeds of sheep in Spain as in any other country, and that the wool of every district, where manufactures have been established and long prosecuted with industry and discrimination, cannot be uniform. Nor is it more consistent to trace the superiority of the Spanish pile to sheep sent from England in the fifteenth century, because the wool of that country had then been distinguished for its superior qualities even here, through more than three hundred years. A few sheep, which at various times have been brought from Spain, and grazed upon the lawns of gentlemen, have yielded fleeces much more weighty, coarse and long, than were expected from them, and have appeared to sanction an opinion that the wool had undergone a great alteration by the exchange of climate, of treatment and of pasture. A fleece of this kind was shown to me last summer; it weighed about nine pounds, and had been well grown in a plentiful supply of rather yellowish yolk, was evidently the produce of a male, and had nearly enveloped the whole animal. The wool was about nine inches long upon the shoulder, and four on the belly; not finer than the usual produce of large sheep, natives of England, but the staple was well formed and exceedingly compact; the hair was evenly disposed and but little curled. This sheep had been brought from Bilboa by a merchant [illegible] and perhaps like most of those imported into the country in a similar way, had been taken on board without any attention to the family from which it was selected; most probably from the meadows which generally surround sea-ports, or even from the marshes, which are so frequent near the mouths of rivers. There is no reason to believe that these sheep would have afforded a smaller fleece even in their own country, much less to suppose that they were invigorated by the best blood of the superior breeds. A matrass, which had been purchased at Cadiz, and supposed to be stuffed with the produce of the neighbourhood, contained the worst wool that I ever saw, it was superior, indeed, to the hair upon the shanks of English sheep, but not so good as the breech obtained from the worst kind of our own fleeces. If it be fair to reason from a fact so imperfectly stated, we must conclude that there is a race of sheep in that country, producing wool of a very inferior order, or one whose fleece does not envelop the belly and the legs of the animal. We place but little dependence upon facts so imperfectly described, and mention them only because they point out one method of collecting information, respecting the produce of a country which has commonly been very much neglected. The manufactures always contain the best samples of the raw materials. From the most accurate descriptions of the wool of Spain, which have fallen into my hands, there appears to be no ground for supposing that the sheep of that country belong entirely to one family. The state of the travelling flocks is minutely related, while that of the stationary ones is either passed over in silence, or but slightly noticed. Yet from these fragments, which lie scattered over the field of statistical inquiry, we gather some hints, which induce us to conclude, that we should entertain just as correct an opinion of the British fleece, if we supposed from some slight accounts of it, which are published, that the breeds of Wiltshire and of Lincoln are precisely the same, as we do of the Spanish, when we imagine that the same race ranges the mountains of Segovia, and reclines upon the plains of Seville.

If to the richness of the pasture we must trace the existence of coarse wool, as to its primary cause, we should observe it more frequently upon the backs of sheep which are distinguishable for their fatness; and the size of the hair, upon some occasions, would indicate the period when an individual exchanged the down and the common for the meadow and the rich enclosure, for the quality of the pile must become less valuable in proportion as the condition of the sheep improved. Yet on the contrary, it is generally remarked, that the fleece shorn from an animal in good condition, is preferable to that which it produced when in a leaner state; and that the bottom of the staple, that part of it which grew during the spring, when the supply of food became more plentiful, and the carcass plump and weighty, is often more valuable than the other portions grown when the fields were least productive.

We are well aware that long wool in its most perfect state, cannot be expected from sheep destitute of the quantity of food which nature requires for her support. When the animal is pinched with hunger, it converts almost the whole nutriment which it receives, to the support of the carcass.—The imperious demands of hunger must, if possible, be supplied, and the wool-producing humour, whatever it be, is immediately rendered tributary to the first necessities of nature. This is one of the resources to which she applies, in order to preserve the existence and the health of the animal; she sacrifices a small convenience to obtain an essential good, and the fleece remains light as though half produced, while the pile is short and somewhat more fine than it would have been in a richer state. These effects have often been observed in the course of farming. They were much more common before it was the custom among graziers to procure a large supply of winter food; and are still observed when the colder season proves unexpectedly severe, or contending with the growing year for protracted dominion, requires that the shepherd dispense his fodder with a sparing hand. Hunger, like cold, contracts the pores of the skin, and renders the yolk, that nourisher of wool, less copious or ill adapted to its natural purposes; affects with keen severity the more tender breeds, but falls with peculiar weight upon the lambs which through two winters have borne their fleece. The hardier race, however; that which looks defiance to mountain storms, and with persevering patience breaks through the frozen snow to search its food; which is contented with the coarsest fare of the roughest pasture, exhibits in its fleece no such symptoms of injured health or ill adapted yolk, though left to secure and to supply itself.

These effects of hunger upon the fleece should always be attributed to their true cause; they are less connected with the qualities of the pasture than with the constitution and disposition of the animal, and teach us that these should always be adapted to the farm upon which it is placed. The sluggishness of those creatures, which produce long wool, requires that their food be rich, plentiful and at hand; while the mountain breed, endowed with a roving temper which disdains the boundaries of a narrow pasture, seeks its nourishment through an extensive range, although it could procure it in the largest abundance with the least possible exertion. The sheep, like most other animals, is a creature of habit as well as instinct, delights in the modes of life to which it has been accustomed, and changes its dispositions only by degrees, or the combinations of blood. Both Bakewell and Culley were well acquainted with its peculiarities, and have succeeded in their attempts to produce a breed, in which symmetry of form is united with wonderful adaptation to circumstances. The sheep of Dishley, heavy of fleece and of temper, have diffused themselves over the richer fields of Leicestershire and Lincolnshire; while those of the Cheviot hills, bearing light fleeces and having long and well formed limbs, scale the mountains of the North and of Scotland

When this nice adjustment of the breed to the circumstances of the farm is attained; when the quantity of food is sufficient to preserve the health of the sheep, and to supply its fleece with an abundance of valuable yolk; when the flock enjoys that ease and comfort which all animals desire, the mere richness or poverty of land seems to have no influence in rendering the fleece either coarser or finer. In the course of a few months flocks are sometimes obliged to change their pasture, and to feed upon soils of a very different description; and yet if their food be sufficient and their comfort undiminished, I presume no one has ever observed a variation in the fineness of the pile. When under such circumstances they have even exchanged the grasses of the mountains for the most nutritious kind of aliment, their fleece, it is thought, has not become more coarse than it was formerly. This opinion is countenanced by the experiments of a learned and judicious agriculturist, who has sought to diversify the monotony of professional engagements by rural occupations, and upon his judgment and accuracy we rely with unsuspicious confidence. But when a sheep which had been accustomed to labour for its food obtains it with great ease, and spends more hours in repose and mastication, the staple of its fleece, although it retains its fineness, becomes considerably longer. This effect is often observed in the different flocks of the same parish, sometimes in the individuals of the same farm. It is, however, the effect of ease rather than of pasture, and should be attributed to that as its proximate cause.

The extraordinary fineness of Spanish wool, the object of English envy through almost seven hundred years, was long attributed, among other causes, to the peculiar herbage of the mountains upon which the sheep spent their summer months. They furnished, it was asserted, a large supply of aromatic plants, which the flocks distinguished with the utmost nicety, and devoured with the greatest eagerness; so that it was deemed from this circumstance utterly vain to attempt the production of an equal pile in any country, which possessed not the means of supplying the flocks with the same delicate nutriment. But a traveller, who examined the pastures of Spain with a botanic eye, assures us that these boasted plains, elevated far above the level of the sea, do not yield grasses materially different from those of other districts, under the same parallels, and of equal elevation. We should expect, if such were the cause, that the fleeces collected from the sides of the towering Pyrenees, would be equal in point of goodness to those of acknowledged beauty collected from the hills of Castile and Leon; that they must resemble the pile, which covers and adorns the shoulders of the Alps and the Appenines, of the Caucasian and the Altaic chains; those of Atlas, Syria and Persia must be nearly alike; nor could a great dissimilarity be observable in the more humble coats of England, whether produced upon the South Downs, the Cotteswold, or the Cumbrian hills. Nor would it be wise in any case to attempt the improvement of our flocks without producing a correspondent change among the plants of our farms. Instead of turnips and cole seed, we must cultivate thyme and marjoram. But we reason no longer upon these points from theory or general facts, the question is clearly decided by the establishment of Spanish flocks in every quarter of the globe, in countries whose soil, temperature, climate and herbage differ most widely. In every place, if preserved from the contaminating influence of inferior blood, they yield a fleece of a superior order, unaffected either by the difference of food or of treatment; as distinguishable for excellent qualities as that of their progenitors.

But the judicious woolstapler is by no means inattentive to the nature of the soil upon which the sheep have been pastured. Calcareous earths, when mingled with the pile, produce a very singular effect upon it, and form the characteristic feature of that kind of fleeces, which the manufacturer distinguishes by the name of chalky wool. These substances render it dry and hard, destitute of that lustre and yolky appearance, which most other wool possesses, and that felting quality which fits it for the operation of the fulling mill; a process absolutely necessary in the fabrication of woollen cloth, but it is readily dispensed with in the production of some other articles. Perhaps this kind of earth produces its pernicious effect upon wool by absorbing that yolk which is so intimately connected with the best qualities of the fleece, or by destroying that peculiar combination of the fluid, which renders it best adapted to the nourishment of the pile. All mixtures of earth with this substance, even that of pure silicious sand, render it less proper for the purposes to which nature has destined it, and it should be one object of the farmer's care to preserve it free from the smallest adulteration. He will perceive a very material difference betwixt the effects of lime stone and of chalk upon his fleece; for the former, which is generally covered with a stratum of vegetable earth, does not so easily mingle with the pile, and often produces it in very good condition, though seldom possessed of the best of qualities. There is one fact respecting this kind of land, related very vaguely in Dr. Aikin's Description of the Country round Manchester, which deserves the close attention of both the grazier and the woolstapler. It is intimated that if flocks of sheep, precisely of the same breed, and I suppose in the same condition, be placed, one upon lime stone, and another upon grit, and kept [illegible] a given time, the weight of the former will exceed that of the latter by four pounds per quarter, and "that there is a still greater difference in their fleeces." Perhaps upon minute inquiry it might be found that the observation had not been made with all the accuracy which agricultoral experiments require, or that the sheep pasturing upon the gritstone had endured either more hunger or more fatigue than their comrades; a circumstance which seems to be indicated, at least to a person who is not a grazier, by the inferior weight of the carcass. A course of experiments calculated to illustrate the effects of the various soils upon the fineness, the length and the general qualities of wool, would be acceptable to the shepherd, and instructive to the manufacturer. At present, we imagine, that to produce their fleece in its best state, sheep should always crop a luxuriant herbage, in dry situations, on loamy soils, beneath a temperate sky, and lodge upon the thickest carpets of verdant nature.

Here again we should observe, and the remark cannot be made too often, that the influence of pasture, climate and temperature, are entirely subordinate to that of blood. It is upon this the greatest changes depend; to this we look for the best improvement of flocks; it is this which first demands the shepherd's care, which he must regulate according to the unalterable circumstances of his farm, and to the demands of the manufacturer. In a business so delicate, and which relates to a substance so susceptible of change as to be rendered in the space of a few years extremely good; or destitute of valuable qualities, he should observe every process with the utmost attention; should possess a profound knowledge of nature, of the woollen manufacture, and of commerce.

Happily the age is long since passed away when he seemed a loiterer with his flock, more ambitious that the valleys should resound with the melody of his reed, than that his sheep should exhibit proofs of his superior knowledge and attention; when he was more employed in whispering the soft sentiments of the heart to a blooming shepherdess, or receiving from her lovely hands the variegated garland, than in attentively noticing the form of his sheep and the peculiarities of their fleece; when he formed the gay circle and "lightly tript it o'er the green," instead of marking the hints, which nature daily gave him of her hidden operations, comparing them with each other under the direction of inventive genius, tempered by the soundness of judgment and the maxims of experience; instead of noting the progress of manufactures, catching the first symptoms of improvement, and adapting the produce of his flock to the rising demand. From Arcadian plains, indeed, the too happy and unsuspicious swain has been driven by the brutal violence of a morose and phlegmatic conqueror; but from the British fallows, the lazy loungers, who after basking all day upon the headland, found it irksome in the evening "to plod with" heavy "step their homeward way," have been allured, not driven, to useful employments and social habits. The calling of the shepherd is at length united with the pursuits of the naturalist, and the combination of knowledge with laborious industry, is doing much to improve the sheep of the British isles, to confirm the stability, and extend the circulation of their manufactures. The experiments directed by the genius of Bakewell, and so happily seconded by the judgment, eloquence, fortune, influence and philanthropy of the late Duke of Bedford, will long render their names favourites of memory; while succeeding generations reap the benefit of their efforts in the improvement of flocks and the amelioration of their wool.

So susceptible is the fleece of improvement, that it most readily rewards the attention which is paid to it. If only freed from the thorns, burrs and filth which it formerly collected from ill managed fallows; if it be nourished almost any where than upon balks, which produces little more than rushes or dry and insipid grass, and if it be relieved from those insects which so often infect it and torment the sheep it assumes a better appearance and becomes actually more useful. It is obvious to every one who has observed, with the slightest attention, that dirt, leanness and disease, are as detrimental to brutes, as filth, poverty and hunger to human beings.

After having determined what kind of wool the farm whic[illegible] he occupies is best calculated to afford, the sheep [illegible]aster should endeavour to obtain from his flock the [illegible]most perfect fleece, as uniform in every part of it as [illegible]ature will admit. We see no reason why any pers[illegible] should be ambitious of raising in one flock, and [illegible]pecially upon the back of a single sheep, those va[illegible]us kinds of wool, which are adapted to manufact[illegible] very different in their nature, and often placed [illegible]y remotely from each other.—In the old system [illegible] sheep farming this was a very common defect of [illegible] fleece, and is not entirely removed under the n[illegible]one. I have never yet met with a single instan[illegible] in which a lock shorn from the buttocks of the a[illegible]al was not greatly coarser than another, which ha[illegible] been taken from the shoulder, although in some [illegible]ses they have borne a much nearer resemblan[illegible]o each other than I once thought it possible to att[illegible] There are fleeces, we are told, so uniformly ali[illegible] through the whole extent, that persons accusto[illegible] to observe wool, and even manufacturers, have [illegible]n unable to distinguish any difference in th[illegible]eness of the pile.—When staples, separated fro[illegible]fferent parts of the sheep have been presented t[illegible]m, if any discrimination was made, they have s[illegible]times pronounced that to be the best which gre[illegible]most remote from the vitals. Such is the descrip[illegible] which Dr. Parry gives us of the fleece of his new breed of sheep, obtained by combining the blood of the Spanish with that of the Ryeland race. The fact deserves the attentive notice of the wool grower, for the advantages which would result from a single sheep producing only one kind of wool, and that equally fine from every part of the body, are utterly incalculable—they are obvious to all. The possibility of procuring such a race, seems to be ascertained by the facts just alluded to, and it is probable from the state in which we find the coats of other domestic animals.

CULTURE OF HOPS.

The New Brunswick Courier, in recommending the culture of Hops in that province, as an article of export, gives the following information respecting the best mode of gathering, drying and bagging, which we copy for the benefit of our agricultural readers.

As the culture of the hop plant concerns the individual who follows it, as a means of living, more than those who could, from convenience, and other local circumstances, render it an item of profitable domestic produce, our observations at this time, are confined to preparing it for a market, under the different heads of gathering, drying, and bagging.

No specific time can, in this country, where, on account of the variety of its soil and climate, vegetation is more or less rapid, in different parts, and also in different seasons, be fixed upon for the *gathering*, or picking of hops:—good judgment, and experience, therefore, are the surest guides to be followed. Their ripeness is to be ascertained, by their strong scent, their hardness, and the brownish colour of their seed. When they arrive at this state of maturity, no time should be lost in having them expeditiously picked, as in the event of a heavy rain falling, they would be bruised and discolored, and thus rendered less valuable in the market, than such as are picked, bright and clear. Special care ought to be observed, also, to pick the hops when they are dry, and the weather fair.

The *drying* of the hops is the next part of the process to be attended to. After having been picked, they ought to be immediately carried to the oast or kiln. This building is similar in its construction to a brick lay'd kiln, for the drying of oats; only, that the floor is overlaid with a covering of hair cloth. The oast, previous to the hops being laid upon it, ought to be moderately heated by a fire of charcoal, and the heat not suffered to be diminished, during the course of drying, but rather increased. The hops are to be laid on a foot, or a little more, thick, and allowed to remain, without being turned, for the space of nine hours, and in two or three hours afterwards, they will be fit for bagging. This may be ascertained by the brittleness of the stalks, and the ears falling off of the hop leaves. The turning of the hops at all, is considered to be injurious rather than otherwise; to prevent this, therefore, oasts ought, where hop-curing is carried on upon an extensive scale, to be furnished with a moveable tin cover, let down to within a foot of the surface of the hops,—this will render the oast close, and the heat will be reflected upon the hops, in nearly an equal degree, on the top as at the bottom.

The mode of *bagging* is simple, and can be managed to suit convenience, and particular circumstances. It ought to be attended to, immediately on the hops being removed from the oast, and put into strong coarse linen bags; the bags must be placed in such situation, as to admit of persons stepping into them, in order to tread the hops down, as they are gradually put in. Thus put up, they will keep for several years, provided they be lodged in a dry place and defended from the ravages of vermin. [New Eng. Far.

PROSPECT OF CROPS.

Extract to the Editor, dated, Auburn, N. Y. *July* 26

Immense damage has been sustained by our farmers by rust in wheat. We cannot calculate on half a crop in all the western counties of the state. Many fields will not pay for harvesting. J. L. R.

Extract to the Editor of the American Farmer, from Newbery county, S. C., July 23, 1828.

"Crops are *excellent* in this state generally; few exceptions; the best crop, so far, since 1819. At this time there is somewhat of a pinching drought; but rain in the course of a few days will efface even the remembrance of it. There is an universal determination, (and there will be no flinching,) to abstain from the purchase of western live stock and northern manufactures until the prohibitory duties shall be repealed. It will be a desperately losing business for any western country hog drover who shall bring his pigs to this market the ensuing winter. In a few days our people will be all united in non-consumption societies."

HORTICULTURE.

LINNÆAN BOTANIC GARDEN.

Fairview, York county, Pa., Aug. 1, 1828.

Mr. Skinner,

It is agreeable to observe that internal improvement appears to claim the attention of the most distinguished of our citizens. Extensive lines of canal and rail-road are progressing with much zeal and activity, in different sections of the Union. Innumerable agricultural societies have been established, composed generally of the most intelligent practical farmers, who, uniting experience with theory, and aided and enlightened by periodical publications, such as your valuable paper, the "American Farmer," the "New England Farmer," and others, are making rapid improvements in the cultivation of the soil, and introducing the most improved breeds of domestic animals from foreign countries—thus daily developing to our citizens new sources of wealth and plenty.

Notwithstanding our obligations to the combined efforts of societies and companies, we are indebted to individual enterprise and patriotism for the introduction of our most valued breeds of horses, cattle, sheep, &c. as well as for the vegetable productions of every clime, from "the equator to the pole," which beautify our streets, orchards and gardens, and whose delicious fruits and valuable productions form an important item in the list of our sources of independence, wealth and happiness.

Among others who have done much for the interests of our favoured country, Mr. William Prince, of Flushing, Long island, occupies a conspicuous station. This patriotic gentleman is the proprietor of the "Linnæan Botanic Garden" at that place.—His establishment, at this time, covers *forty-one acres* of ground, and together with the extensive range of green houses attached thereto, contains the choicest productions of the vegetable kingdom, from every country with which commercial enterprise has opened an intercourse.

The importance of this establishment as a *national institution* is inestimable—and although catalogues are annually issued by the proprietor, yet a compendious notice of its immense contents, would be interesting to your readers and the lovers of horticulture in particular.

The Linnæan Botanic Garden at Flushing, Long island, contains of the apple, 172 varieties—pear, 202 var.—cherry, 76 var.—plum, 139 var.—apricot, 25 var.—peach, 81 var.—nectarines, 20 var.—almonds, 10 var.—mulberries, 14 var (eight of which are white, and of the kinds most celebrated in Italy for the silk culture)—quinces, 6 var—figs, 16 var.—currants, 16 var —raspberries, 15 var.—Gooseberries, 47 var.—strawberries, 20 var.—&c &c.

The collection comprises more than four hundred varieties of the grape of the choicest kinds. "Specimen vines of every kind have been planted out for bearing"—thus affording an opportunity of making selections in the season of ripening; and as it is now reduced to absolute certainty that wine, equal to any ever imported from abroad, can be produced in our own country, it would contribute to the success of the enterprise, if those about to plant vineyards would visit this establishment previous to making their selections. The expense of a trip to Long island would be amply compensated by the information to be there acquired on the subject, and by the assurance of having procured vines adapted to the particular locality, a point, probably, of the first importance in the culture of the grape, and to which much attention is given in the wine countries.

Mr. Prince has given much consideration to the ornamental department of his establishment. The catalogue contains a list of 79 ornamental forest trees of the first class and largest growth—59 of the second class—shrubs, 243—evergreens, 62—vines and creepers, 48.

The attention given to the department of the flower garden, may be appreciated, when it is known that it contains 388 species and varieties of the hyacinth—620 var. of the tulip—429 var. of the rose—49 of the lilly—84 of the iris--53 of the carnation—100 of the dahlia, (a splendid plant from Mexico)—16 of the honeysuckle, &c. &c.

The green-house contains upwards of 20,000 exotic plants in pots, and forms, during the winter, a display inconceivably beautiful and interesting.

Mr. Prince has lately published "A short treatise on Horticulture, embracing descriptions of a great variety of fruit and ornamental trees and shrubs, grape vines, bulbous flowers, green-house trees and plants," &c. "with directions for their culture, management," &c.

This invaluable little book ought to be in the hands of every gardener, nursery-man, amateur, and, indeed, of every farmer. The instructions given for the management of trees and plants are so plain and practical, and so divested of mystery and difficulty, as to render the cultivation successful in every instance.

Very few of the green-house plants cultivated in our parlour and sitting-room windows, arrive at perfection, from the want of a knowledge of their peculiar habitudes and mode of culture. On this subject much useful and interesting matter will be found in the treatise, as descriptions of many rare and splendid plants suitable for window ornament are given, to wit—Camellia Japonica, or Japan rose; Chinese magnolia; Gardenia, Lachenalia; Ixia; Dionæa Muscipula, or Venus fly-trap; Hydrangea; Monsonia; Oxalis; Antholyza; Geranium, &c. &c.

To those engaged in the cultivation of the grape vine, this little volume will afford a compend of practical information, as it contains descriptions of about seventy of the most suitable varieties for the climate of the different sections of the United States, including many valuable native grapes, some of which have been found to produce wine of very superior quality—with appropriate remarks on the propagation, transplanting, pruning, training, protection, and naturalization of grapes, with an interesting estimate of the produce of vineyards.

It is to be wished that our booksellers generally may find it their interest to keep Mr. Prince's "Short Treatise" for sale.

The proprietor of the "Linnæan Botanic Garden" has made, and is still making great exertions, and incurred immense expenditures in extending and perfecting his establishment. Almost every tree, shrub and plant, "useful in the various departments of national industry, as well as those which serve to gratify our pleasures alone," may be found in it. It now rivals many celebrated European gardens which have been cherished by the patronage of emperors and kings. It has become worthy to be ranked among our most valued national institutions, and its patriotic proprietor is entitled to the patronage of a liberal and enlightened public.

REMARKS ON THE OLIVE TREE.

From Mr. Jefferson's Letter to the Agricultural Society of South Carolina.

The olive is a tree the least known in America, and yet the most worthy of being known. Of all the gifts of Heaven to man, it is next to the most precious, if it be not the most precious. Perhaps it may claim a preference even to bread; because there is such an infinitude of vegetables, which it renders a proper and comfortable nourishment. In passing the Alps at the Col de Tende, where they are mere masses of rock, whenever there happens to be a little soil, there are a number of olive trees, and a village supported by them. Take away these trees, and the same ground in corn would not support a single family. A pound of oil which can be bought for 3d. or 4d sterling, is equivalent to many pounds of flesh by the quantity of vegetables, it will prepare and render fit and comfortable food. Without this, the country of Provence, and territory of Genoa, would not support one-half, perhaps not one-third of their present inhabitants. The nature of the soil is of little consequence, if it be dry. The trees are planted from fifteen to twenty feet apart, and when tolerably good, will yield fifteen to twenty pounds of oil, yearly, one with another. There are trees which yield much more. They begin to render good crops at twenty years old, and last till killed by cold, which happens at some time or other, even in their best positions in France; but they put out again from their roots. In Italy, I am told, they have trees two hundred years old. They afford an easy, but constant employment through the year, and require so little nourishment, that, if the soil be fit for any other production, it may be cultivated among the olive trees, without injuring them. Wherever the orange will stand at all, experience shows, the olive will stand well, being a hardier tree.

Notwithstanding the great quantity of oil made in France, they have not enough for their own consumption; and therefore, import from other countries. This is an article, the consumption of which, will always keep pace with its productinn. Raise it, and it begets its own demand. Little is carried to America, because Europe has it not to spare; we, therefore, have not learnt the use of it. But cover the southern states with it, and every man will become a consumer of it, within whose reach it can be brought, in point of price.

RURAL ECONOMY.

FAMILY SPINNERS—*Much wanted in the South.*

[We cannot better serve the purpose of the writer, than by the publication of the following note. Many letters from our correspondents in the south, gives the same indication of a determination there to manufacture within themselves, at least all the coarser fabricks, a resolution which may safely be commended at all times, for it involves not much expenditure, gives employment at a leisure season to persons that would otherwise be unprofitably engaged, and though it may be said that the articles would cost less to *buy* them, of that we are not so sure, whilst on the other hand we are sure that the money has not been expended. In these times, it behooves the farmer in the first instance to *expend* as little as possible; let him live within himself, and *keep out of debt*; and as for *accumulation*, that must be left for better times, and is, or ought not to be thought so essential at any time.]

J. S. Skinner, Esq. *Sparta, Geo. July* 26, 1828.

The letter of Wm. R. McCall, published in a late number of the American Farmer, has been read with great interest in this part of the country. For though we have labour saving machines for spinning cotton and woollen yarn, they are not probably so well adapted to our convenience as this, and more costly. If you have an opportunity, urge him to come on without delay. He can make a safe agency for the sale of his *Domestic Spinner*, in every village, and sales on reasonable terms, will be easily and rapidly made. Our planters are determined to fabricate their own clothing; which I am sure they can profitably do in good or evil times. Yours, &c. J. CRAWFORD.

(From Bordley's Husbandry.)

GATES.

The best farm gates on my farms, were thus constructed. The posts were sawed square off at the tops; and were but 4 feet 6 or 8 inches high from the ground. The top of each post inclined 4 inches inward toward each other. Their distance on the gruond was 9 feet, of course the distance at top was but 8 feet 4 inches; and this inclination seemed to influence oxen and horses, in carts to take more to the middle of the passage. Gluts of wood, large and stout, were trunnelled to the posts and let into the ground, which served as fenders and braces.—These fenders also tended to direct beasts to the middle of the way.

Gate posts ought never to be higher, if so high as the cart wheels; that plain frames holding hay or straw, may pass over the posts.

When posts are thus inclining to each other at the tops, the *gates* will be narrower by 8 inches, at top than the bottom; and of course lighter than if of the square of 9 feet, as at the bottom; and as they are opened they rise gradually from nothing to 4 inches; and then being let go, gently fall to their station at the post.

My gates had been widened from 10 to 11 feet, by an honest Hibernian much my friend, that the carts might be sure to pass through without striking the posts; but alas! the drivers became more careless, and the cattle were left to their own bias. These posts 11 feet apart were more cut than those of 10 feet, as the 10 feet were more than the 9 feet. These last were indeed scarcely touched—the fenders, &c. preventing it.

INTERNAL IMPROVEMENT.

(From the National Gazette.)

CHESAPEAKE AND DELAWARE CANAL.

2d June, 1828.

At an election held this day, the following gentlemen were elected for the ensuing year:

President—James C. Fisher.

Directors.

Thomas P. Cope,	John K. Kane,
Robert M. Lewis,	Isaac C. Jones,
Robert Wharton,	Thomas Fassitt,
John Hemphill,	and
William Platt,	Ambrose White.

NINTH GENERAL REPORT

Of the President and Directors of the Chesapeake and Delaware Canal Company.

On approaching the stockholders with a statement of the present condition and prospects of the great and interesting work committed to the charge of the board, it becomes their melancholy duty to announce the recent demise of their highly valued friend and associate, Silas E. Wier, whose departure has unexpectedly deprived the committee of works of its estimable chairman, the board of one of its most intelligent and active members, and society of one of its most useful and public spirited citizens.

Waving this painful event, the board has the satisfaction to report, that since the last annual meeting the works on the canal have, through many difficulties, been gradually and successfully progressing towards a termination.

The passed winter proved unpropitious, the incessant and heavy rains which prevailed throughout almost the whole of that season, greatly retarding the operations of the workmen, and in fact frequently putting a stop to every species of labour on the line. The soil, naturally abounding with springs, was rendered so soft in the bed of the canal, as to prove unmanageable by the spade, and the few men who persevered in their arduous toil, stood not unfrequently up to their knees in the liquid earth.

The works at the Delaware harbour are in good order, evidencing their entire stability and usefulness. No additional wharf work has been ordered since the last report, the board apprehending it to be most for the interest of the company, and the convenience of the public, rather to urge, in the first place, the completion of the line of canal, leaving other objects of less pressing concernment to be finished at leisure. The wharves have, however, proved very serviceable, and afford protection to the passing trade of the Delaware.

The sluice on the northern drain, constructed originally of wood, having been discovered to be defective and insufficient for the purposes designed, another of solid stone masonry has been substituted at a moderate expense, and the board availed itself of this circumstance to change the location; by which the public convenience and accommodation has been consulted, without injury to the company. The new sluice has been placed on the main road, and forms a very substantial and useful bridge, on a much frequented route. The drain itself had never been entirely excavated. That process is now going on, and when effected, will be promotive of the health and comfort of the neighborhood, objects to be desired by the company, and which it has been the study of the board at all times to cultivate and promote.

A considerable part of the unfinished guard bank below the village of St. George, indicating a decided tendency to sink, was unhesitatingly abandoned. The board has not, for a moment, doubted the economy and policy of this measure. Between 100 and 200 acres of wild unredeemed marsh, of little or no value to any body, will in consequence be overflowed, but it will add considerably to the supply of water for the purposes of navigation. It seemed indeed to be placing the funds of the company, and the speedy completion of the canal at too much hazard, to persevere in building up that bank in face of the impressive, but unavoidable lessons of experience, so recently acquired, by the board, in the immense sinking of the tow-path directly on the opposite side of the canal. As evidence of the singularly flimsy quality of the fibrous material of which the marsh in this place is mainly composed, it may be mentioned that the dredging machine, successfully and profitably employed here in bottoming out some of the parts left unfinished by the spade, is found to bring up from the lowest depth to which the buckets descend, matter whose specific gravity is so trifling that when torn from its native bed, it may constantly be seen floating on the surface of the canal.

One other spot of recent construction, in the guard bank, about 100 feet in length, immediately over the former water course of the St. George, sunk, some days back, so far below the proper level, as to occasion an overflow of the adjacent marsh; the damage was however speedily repaired; and the navigation, which had of course been temporarily interrupted by the accident, has been resumed; nor does any apprehension exist as to the future, in fact, so large a portion of the guard bank had been previously abandoned, as already intimated, that little of it remains to occasion any anxiety at all; the line of the canal on that side being at present principally bounded either by solid earth, through which it has been cut, or by native shores covered with verdant and closely timbered forests. The tow-path throughout its whole extent, continues to wear the appearance of firmness and durability, having been in constant use for some months, by heavily laden carts and wagons in the service of the board.

The water has for several weeks been let into sections one to four inclusive, and an active scene of business exists on the whole eastern division of the canal, from Delaware city to the company's wharf near the summit bridge. Sloops, heavily laden, are continually plying between these two points; and the Lady Clinton packet boat runs daily on the same route. Owing to the depth and expanse of the water, it is discovered that vessels can easily traverse this splendid canal, at the rate of from six to seven miles an hour. As further evidence of the growing importance of this work, and of the bent and tendency of the public mind in its favour, it must be pleasing to the company to be informed, that the steam boat Baltimore, fitted up in a style of great elegance and convenience, for the accommodation of passengers, is established as a regular packet between Philadelphia and the company's harbour, on the Delaware, and that the steam boat Essex, also very handsomely fitted for the same purpose, visits the harbour every day, on her way between the city and Salem, New Jersey. Both boats are ably commanded, and well furnished.

On the western division, sections six and seven are finished, the locks are in good order, and the gates are hung, and every thing is prepared for immediate use. The contractor for this division, whose contract extends eastwardly into No. 5, within less than a mile of the Buck tavern, thinks he will have his portion of the work prepared for navigation, in six or eight weeks from the present time, when the water will be introduced into that division. Nor does a doubt exist, that the entire canal will be completely finished and navigable the ensuing autumn. The only excavation of any moment, still to be accomplished, is on the deep cut, where a part of the canal is now carried down to bottom and finished, and the removal of less than 160,000 cubic yards of earth will complete the canal. It may not be improper to add, that considerably more earth has already been taken from the line of the canal, than was originally contained within its limits; and that consequently the deposite caused by slips and washes, and more especially by such as were incident to the injunction, were more than equal to the quantity of material yet to be excavated. These slips, and the quicksands which occasionally harassed the workmen, appear to be at length completely subdued; and the stoning of the sides, which is progressing with rapidity, ensures solidity and security to the banks; the excavation which goes on simultaneously, is also proceeding with energy and effect.

The stoning extends about 3½ miles along the deep cut—the wall is rather more than eleven feet perpendicular, about sixteen feet on the slope, descends one foot below bottom, and rises a little higher than the water line. It is from eighteen inches to five feet in thickness, at the base, according to the nature of the soil over which it passes, and finishes at the top, with from one to three feet. Under the summit bridge, however, this wall is carried upwards on both sides of the canal, until it is met by the abutments, which it is designed to protect. The wall requires 44,000 perches of masonry, of which 18,000 remain to be built. The stone for the eastern division is brought by water, from quarries in the vicinity of Chester, to the company's wharf, near the summit bridge; and that for the western division, is brought from Port Deposit to Back Creek, whence it is wagoned.

A small village, to be called Chesapeake, has been laid out at Back Creek, designated for the convenient erection of warehouses for the produce of the country, and the necessary buildings for persons who may be engaged in the business and service of the canal; the accommodation of watermen, who may resort to the place in prosecution of their calling, and generally for the use of all who may stop on their way to and from market. The board trusts that this spot is destined soon to witness the cheering hum and bustle of active commerce.

The company will learn with satisfaction, that the board has purchased, on very eligible terms, Jones's mill and pond, at the head of the St. George, which ensures to the company the entire command of the water power of that important creek; the board having previously bought Lum's, the only water power situate between Jones's and the canal.—The buildings on these estates are old, and of little comparative value, but the possession of the ponds to the stockholders, is an affair of much consequence. The newly acquired pond adds another reservoir to our resources, and their possession, by the company, puts an end to the jealousies and jarring interests so common among proprietors of water power on the same stream, nor will the company be now subject to the caprice or humour of any individual for their regular supply of water on the summit.

Calculations have been formed, perhaps with no very great accuracy, to approximate towards some degree of certainty, as to the supply of water which is to be relied on from the present arrangements on the summit.

	cubic feet.
The 500 acres overflowed on this part of the canal, it is believed, will yield	43,560,000
Lum's mill-pond, of 100 acres, being of the average depth of six feet,	26,136,000
Jones' mill-pond, twenty-five acres, average depth five feet, (and may be increased,)	5,445,000
	75,141,000
Lum's can be raised three feet, to say nothing of Jones'. Add	21,780,000
We have then in cubic feet,	96,921,000

A lock filled with water, will contain 22,000 cubic feet; two lift locks, 44,000 feet; but with a large sloop floating in it, one of these locks may be estimated at 16,000 cubic feet, or 32,000 for the two locks.

Supposing ten vessels to pass daily, there will be water for	302 days.
Fifteen vessels, ...	201 days.
Twenty vessels, ...	151 days.

It is assumed, in this estimate, that two lockfuls of water will be required for the passage of each vessel; whereas in probably a majority of cases, a single lockful will suffice. It is moreover to be observed that this estimate is independent of the inexhaustible supplies to be derived from the Delaware and the Chesapeake, whenever the demands of the canal shall render a resort to them necessary or desirable.

Speculations have also been indulged on the subject of evaporation, leakage, and soakage; and it has been conjectured that the springs which issue so abundantly from the bed of the canal, and which so far have shown little symptom of failure even in dry weather, added to the supplies from rain, will prove equal to the evaporation; and that in a soil so humid and retentive, and at the level of the tide, there cannot be much leakage or soakage.

The account of the Treasurer will show the fiscal transactions of the Board for the past year.

It was stated in the last annual report, that in pursuance of authority vested in them by the stockholders, the Board opened a loan on the 11th Feb. 1826, for	$350,000
And another, on the 16th Jan. 1827, for	200,000
Since that period, in pursuance of the same authority, they opened two other loans, viz:	
On the 15th of August, 1827, for	150,000
On the 16th January, 1828, for $300,000, of which they obtained	139,600

Leaving of the latter, yet to be filled, and for which it has been proposed to open the books for subscriptions, about the 1st of July next, $160,400.

On the subject of this loan, the board feels itself warranted to say, that no object for the investment of capital, within the knowledge of its members, presents a fairer claim to public consideration—no object presents a better prospect for profitable remuneration of the lender, or for the punctual payment of the interest and the final redemption of the principal. The lender receives six per cent. interest, certain, for five years, on the amount of his certificate, with the option of converting his loan into the stock of the company, at the expiration of that term, by which time he will have had full knowledge of the advantages of such investment, from having witnessed the actual business of the canal. The charter is perpetual, and rests not on the caprice of any human power, for a renewal, nor is it subject to the payment of a heavy bonus every few years, as is the case with our monied institutions, almost without exception. And if the lender prefer so to do, he can, at the termination of the five years, receive back his capital, and apply it to any other purpose at his pleasure.

The quantity of lumber and other produce which has descended the Susquehanna this season, is said to be unparalleled in value and extent, notwithstanding the facility afforded by the happy completion of the Union Canal. Had the Chesapeake and Delaware Canal been in operation, a large proportion of these, and other articles, would have found their way through that channel to Philadelphia; even now, such is the preference given to our market, that large quantities are shipping from Port Deposit to our metropolis, by the tedious and hazardous route of the Chesapeake and Delaware bays, a distance of not less than six hundred miles, including also a sea voyage.

We rejoice with our brethren of Baltimore, in the gratifying prospect of a speedy commencement of their great railway. It will prove another profitable and desirable medium of intercourse between the Atlantic and western states. Its direct effect must be to increase the wealth and commerce of our sister city; but it cannot fail in its more remote consequences to add to the business of the Chesapeake and Delaware canal, to benefit the trade of Philadelphia, and to promote the general prosperity.

The highly commendable and liberal appropriation of a million of dollars, by Congress, towards the accomplishment of the Chesapeake and Ohio canal. we hail, likewise, as an event most propitious for the country at large, and as a circumstance most singularly calculated to advance the interests of the Chesapeake and Delaware canal; these two canals forming, in effect, but separate links in the same great chain of internal navigation; and we are to consider in the same light the improvements now forming in the Dismal Swamp canal, in the vicinity of Norfolk, Virginia, which opens to us a direct inland water communication with North Carolina, and, eventually with South Carolina, and, perhaps, even Georgia—advantages which cannot be too highly appreciated, especially should these

United States be at any time involved in the calamities of war with a foreign maritime nation.—The Chesapeake and Ohio canal will probably be navigable at all seasons of the year; and it is to be observed, that the Chesapeake and Delaware canal will be so for weeks and for months, in the winter season, when no other canal now in operation, nor any which has at any time been projected to the northward of it, can be used for the purposes of commerce or transportation.

The breakwater, to be erected at the mouth of the Delaware bay, which Congress, in the same liberal and patriotic spirit, have determined forthwith to erect, will also be very advantageous to our canal. The coasting trade will especially derive security and encouragement from the protection which this breakwater will afford, and the small craft of the two bays will, doubtless, as a necessary consequence, be very greatly increased. Already is it in contemplation to supply materials for that great work from Port Deposit, through the Chesapeake and Delaware canal, and it is apparent that the shortest and most secure route to the ocean, from the upper parts of the great Chesapeake bay, will be through the same channel.

Signed by order and on behalf of the President and Directors,
JAMES C. FISHER, President.
H. D. Gilpin, Secretary.
Chesapeake and Delaware Canal Office, May 31, 1828.

LADIES' DEPARTMENT.

(From the Connecticut Mirror.)

SATURDAY NIGHT AT SEA.[*]

A mother stood by the pebbled shore,
In her hand she held a bowl—
"Now I'll drink a draught of the salted seas
That broadly to me roll!—
On them I have an only son
Can he forget me quite?
Oh! if this week away has run
He'll think of me this night,
And may he never on the track
Of ocean in its foam
Fail to look gladly kindly back
To those he left at home,
I pledge him in the ocean brine,
Let him pledge me in ruddy wine."

A sister stood where the breakers fall
In thunders on the beach,
And out were stretched her eager arms,
For one she could not reach.
"I'll dip my hand, my foot, my lip,
Into the foaming white,
For sure as this sand the sea doth sip
He'll think of me this night,
And may he never, on the deck
Or on the giddy mast,
In gale or battle, storm or wreck,
Forget the happy past.
I pledge him in the ocean brine,
Let him pledge me in ruddy wine."

A wife went down to the water's brink,
And thither a goblet brought:
"Here will I drink and here I'll think
As once we two have thought.
We've romp'd by rock, and wood, and shore,
When moon and stars were bright,
And he, where'er the tempests roar,
Will think on me this night.
And may he ever, ever meet
With a friend as true and kind,
But not to-night shall he forget
The wife he left behind.
I sip for him the ocean brine,
He'll quaff for me the ruddy wine."

A maid came down with a hasty foot—
"My lover is far at sea,
But I'll fill my cup and drink it out
To him who deserted me.
Nor mother, nor sister, nor wife am I,
His careless heart is light—
And he will neither weep, nor sigh,
Nor think of me this night.
He will, HE WILL a *Sailor's* heart
Is true as it is brave,
From home and love 'twill no more part
Than the keel will quit the wave.
I pledge thee love in ocean's brine,
Pledge gaily back in ruddy wine."

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[*] It is well known that naval officers as well as their seamen, appropriate Saturday night at sea, to the subject of their "*domestic relations*" over a glass of wine or of grog as the case may be. It may not be so notorious that their female friends drink salt water in celebration of this nautical vigil.

PICKLING.

CUCUMBER MANGOES.

Take large cucumbers, cut a small hole in the sides, and extract the seeds, which must be mixed with mustard seeds and minced garlick; then stuff the cucumbers full with them, and replace the pieces cut from the sides; bind it up with a bit of new packthread; then boil a sufficient quantity of vinegar with pepper, salt, ginger, and mace, and pour it boiling hot over the mangoes four successive days. On the last, add some scraped horse-radish and flour of mustard to the vinegar, and stop the whole close. The vinegar may be poured on more than four times.

INDIAN PICKLE.

Divide the heads of some cauliflowers into pieces, and add some slices of the inside of the stalk, put to them two white cabbages, cut into pieces, with inside slices of carrots, onions, and turnips. Boil a strong brine, simmer the pickles in it two minutes, drain them, let them dry over an oven till they are shrivelled up, then put them into a jar, and prepare the following pickle:—to four quarts of vinegar, add two ounces of flour of mustard, two ounces of long pepper, two ounces of ginger, four ounces of horse-radish, and a few shalots. Boil the whole, and pour it on the pickles while hot; when perfectly cold tie them down, and if necessary, add more vinegar afterwards; and in a month they will be excellent.

SPORTING OLIO.

Pedigrees of Thorough-bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

The superior high blooded Race Horse

SIR ALFRED,

Was got by the celebrated horse Sir Harry, (the handsomest and one of the best sons of Sir Peter Teazle, who was unquestionably the best stallion in England.) Sir Alfred's dam was Lady Chesterfield by old Diomed, his grandam was the famous mare Lady Bolingbroke, by the imported horse Pantaloon, his great grandam Cadesby, by Wormley's King Herod, (a son of Fearnought,) his g. g. granddam was Primrose, by Dove, out of Stella, by Othello, (a son of Crab.) Stella was out of Col. Tasker's famous, imported mare Selima by the Godolphin Arabian. Sir Alfred is very handsome and powerfully made, of a beautiful bay colour, with black legs, main and tail, in high health and vigour, and as likely to get a good stock as any horse in this country. His blood is inferior to none in the world. He was one of the best 4 mile racers that ever started in Virginia. Under the care of Mr. John Minge, in 1810, he won the jockey club purse at Richmond, in the spring. He had both speed and bottom, as was proved particularly by his *twenty mile run* for the jockey club purse at Fairfield, in the fall of the same year. In the 1st heats he was run for speed about 2 miles by Gen. Chamberlayne's Wonder mare; she giving it up, he was then attacked by Mr. Wade Mosby's horse Duroc, (the sire of Eclipse,) it was well contested, and the judges declared a *dead heat*. The 2d heat equally severe, was also declared a *dead heat* between them. The 3rd heat Sir Alfred won with ease; but was beaten the 4th and 5th, by Mr. Johnson's Maria—Maria and Malvinia having merely saved their distance in the 1st and 2nd heats; and although Sir Alfred was very much cut in the hind legs by Duroc in the 2nd heat, yet in about a month afterwards, he met the two mares at Norfolk, and in fine style won the jockey club purse from them, with ease, in two heats. In 1814, in the spring, he was beaten by Mr. Wilk's Madison, 3 mile heats, at Belfield, but afterwards won the jockey club purse at Fairfield. Last fall he was again trained and run a good race for the jockey club purse at Salisbury; but it was found that he had lost much of his speed from the injury one of his fore-legs has sustained from an accident in training in 1811. He is therefore withdrawn from the turf and offered to the public as a stallion; and as fine a constitutioned horse as lives.

Feb. 1st, 1813. Wm. Hoxhall.

SHYLOCK,

A beautiful bay, 15 hands 2 inches high, was got by the imported horse Bedford; his dam by old Diomed; his grandam by the imported horse St. George, his great grandam by old Fearnought, out of a Jolly Roger; and she out of an imported mare.

Shylock was a superior race horse, being beaten only once, and that mile heats, in spring 1812.

In the fall of 1812, he won at Oak Grove, beating three others; and one other race the same season, beating three others who had been winners. Spring of 1813, he was lamed in training, and did not run. Fall of 1813, he won at Mansfield, two mile heats, beating six horses. Same season walked over the course at Oak Grove. Same season, he won the jockey club purse at Broad Rock, at one heat. Same season, he won the jockey club purse at New Market, with ease. Also, at Belfield, the jockey club purse at three heats, beating several fine horses. Spring, 1814, he won the jockey club purse, four mile heats, at New Market, beating with great ease two horses. He ran the two first miles in the second heat, in 3 minutes 49 seconds, and ended the race in style. Edmund Irby.

Inquiries about Diseases of Horses.

Mr. Skinner:

Through the medium of your paper, I beg leave to make some inquiries regarding the botts or grubs in horses. It seems to be well established, that they proceed from the fly which lays its eggs in such abundance on horses during the fall months, commonly called the nit-fly. I have been, for some years under the impression, that daily care in scraping these nits from horses, would prevent all danger from botts; but I have lately lost a valuable animal (by the botts) which I know had been well attended to, in this regard, for more than three years. How do botts get into the stomach of horses, after they are hatched from the egg? Can they get into the stomach by any other means, than by being bitten by the horse from his hair, or by being hatched on the hair and crawling into the mouth? If they are scraped off, will they hatch on the ground, and will they then crawl up the horse and get into his mouth? I make these inquiries, because prevention is not less important than cure of disease.—Hickory ashes are recommended as a preventive of the botts. They may generally have a good effect, but I know they are not always a preventive. Is there any preventive which may be relied on? Do botts ever produce the death of a horse, without eating *through* the intestines? They sometimes destroy the inner coat of parts of the intestines without eating through. Will this alone produce inflammation and death? Will it not, at least weaken the digestive powers and produce tendency to cholick?

I have several times successfully tried the remedy of Nimrod Owings, as prescribed in 5th vol. American Farmer, page 214, but have found the operation of the oil slow, and deficient in purging the horse. What is the quickest, and at the same time safest purge, that can be given to a horse? What nourishment, and how prepared, is best for a horse after taking a purge, and how should he be treated until it operates? I am well satisfied the only remedy for the botts after they have seized upon the intestines, must be, to induce them to let go, and then pass them off by purging; for any thing that will kill a bott, will kill a horse. Are there any symptoms by which it can be ascertained, whether a horse is troubled by botts until they seize upon the intestines in such a manner as to give him pain, and make him roll and tumble? Is there any other difference, than the swelling of the body, between the symptoms of grubs and cholick, after the horse has become restless and uneasy?

Certainly no animal is so useful or important to man as the horse; yet very few know any thing of the nature or cure of his diseases. In our southern country more than half the horses die of botts or cholick; yet you seldom find two men agree in the mode of treatment of either. An answer to the foregoing queries and suggestions relative to botts, I am sure will be useful to, and gratefully received by most of your readers; and they are suggested with the hope that those who have experience and skill, will contribute their knowledge for the general good.

In the Farmer, Glauber salts and bleeding are recommended for the cholick. Either is good; but *both* administered in due time, never fail to cure.

The proper and best method of rearing and treating young horses, from birth to maturity, together with the treatment and food of mares, while in foal and suckling, is very little understood. A full and minute essay on these matters would be of great value. Many of your readers (none more than Mr. Broadnaxe of Va.) are capable of furnishing full information on these points. It may well be hoped, that novices and amateurs in breeding, will soon be furnished with the necessary information.

A Subscriber.

MISCELLANEOUS.

PAINTING.

[To whatever other arts a republick may be considered as favourable, it is not the soil for the fine art of painting. Where every man's estate, as soon as the breath escapes from his body, is chopped up, and divided amongst all his relations; there can never be such accumulation as will enable many to indulge in the purchase of the *chef d'œuvres*. of great artists. Where the tendency of the laws and institutions is to make all poor, and dependent on the constant exercise of their individual faculties, men will undoubtedly make great progress in the useful arts and trades—necessity will sharpen their ingenuity, and numerous will be the inventions where the gain is immediate and the market sure; but how is it possible, in our country, ever to have artists whose productions will command the prices mentioned below? Is not the condition of our country every year less congenial to the growth of that art? Is it consistent with the general happiness of the citizens of any country that such prices should be given for such articles--are they not luxuries purchased for the few by the sweat and oppression of the many?]

Mr. Zachery's Pictures.

The sale of the grand collection of pictures, the property of Mr. M. M. Zachery, of the Adelphi Terrace, took place yesterday afternoon, at Mr. Phillips's, New Bond-street. It would be impossible to describe the interest which the announcement of so fine a collection for sale occasioned, from the minor artist to the most proficient in the art.—The following were a few of the principal, with their prices attached: A grand Italian Landscape, by Claude Loraine, in which the artist has introduced an historical subject from Ovid—1550 guineas. The celebrated Water Mill, by Hobbrina and Berghem—1150 guineas--. A Grand and Solemn Landscape, with the effect of a Storm, by Ruysdael—870 guineas. A Marine View on the Coast of Holland, by W. Vandervelde; (this fine gem of the art formerly adorned the collection of a distinguished personage,)—565 guineas. The Virgin Child, and St. Joseph, by Julio Cesarle Proranini—510 guineas. A Landscape with Cattle, and a Shepherdess Reposing, &c. by A. Vandervelde—500 guineas. The Interior of an Apartment, with the Portraits of the Artist and his Wife, and Jan Stein, by G. Metzu—500 guineas. A Landscape, with Cattle and Sheep crossing a River, by Ruysdael—390 guineas. The Interior of a Corps de Garde by David Teniers--380 guineas. A View of a Sea port in the Levant, by J. Lingleback--245 guineas. The Pilgrim, by Wouvermans—250 guineas. A Landscape, by Berghem--205 guineas. The Portrait of Helena Foremanns, the Virgin, and Infant Christ, by Rubens—280 guineas; and a number of others equally interesting and valuable.

THE FARMER.

Baltimore, Friday, August 15, 1828.

☞The Trustees of the Maryland Agricultural Society will hold their next meeting on Thursday, next, the 21st inst., at Bloomsbury, the residence of Henry V. Somerville, Esq.

Having had the pleasure, for some years, to know the author of the following prospectus, entertaining full confidence in his capacity and resources for the undertaking, we copy it the more readily, as we believe it will make known the existence of a publication that must be interesting, and of real utility to physicians, lawyers, general scholars, parents, tutors, and all, in short, who wish to avail themselves of the new works in foreign, and especially French science and literature.

Through Mr. De Behr, any of the new or existing publications may be procured, an idea of their contents and general plan having been first obtained through the medium of his proposed "*Journal of the Literary and Scientific productions of France and Germany.*"

We are persuaded that the American publick, we mean even the reading portion of it are not aware of the very high rank and value of *German literature* in the estimation of the few whose good fortune has made them familiar with it: we were first most forcibly impressed with the value of the treasures inaccessible to those who are ignorant of that language, by being told by two amongst the most erudite scholars our country can boast of, Messrs. Everett and Bancroft, that of all the languages they knew, they would be most unwilling to part with their knowledge of the German.

PROSPECTUS.

Bibliographie Francaise, Allemande, Italienne, &c.

Ou, Journal général des productions Litéraires et Scientifiques De La France, De L'Alelemagne, &c.

In no country in the world, are the use and necessity of instruction so forcibly felt as in the United States. The Americans know that in order to be a free people, they must be an enlightened one. Consequently all their efforts tend to a rapid improvement in the arts, the sciences, and the system of education, which end is attained by their unparalleled ardour in establishing schools, colleges, and Universities in different parts of their great republic. It can be justly said that elementary education is both more generally and more extensively diffused among them than in any other part of the world. In what other country in proportion to its population do we find so great a number of schools, and so adequately supported as in United States? If, however, *primary* education is more disseminated here than elsewhere, the higher branches of learning have not yet attained the same degree of perfection as in Europe. With respect to the sciences, and general literature, an ample field is left for improvement, which it is hoped will not long remain unproductive. To accomplish this end, the useful acquirements of other nations must be made subservient to our literary advancement. Since the invention of printing, it is no longer necessary to go abroad to receive oral instructions, from the wise and the learned, we are now possessed of the means of studying their writings at home. But in order to become acquainted with them, we must be apprized of their existence. Literary journals furnish us only with an account of the most remarkable productions, and the bulk of them remains unknown to us. It is to obviate so great an inconvenience, that I publish the *Bibliographie de la France*. I shall not, however, limit myself to that country exclusively. The most important publications of Germany, the Netherlands, &c. &c. shall be presented to my readers. I have given the preference to France on account of its language being of all foreign tongues the most universally cultivated here, and its literature one of the most brilliant of Europe. In order to shew its importance, I give a sketch of the number of volumes published in that language during ten years, from 1816 to 1825.

* *Années.*	*Total du nombre des vol.*	*Nombre des vol. publiés des Sciences suivantes pendant les dix ans.*	
1816	5,571,075	Histoire	24,282,064
1817	5,934,900	Belles Lettres	19,218,034
1818	6,627,134	Theologie	9,912,228
1819	6,118,767	Legislation	6,537,166
1820	6,743,442	Industrie	5,941,800
1821	7,333,200	Mélanges, almanachs, &c.	2,600,363
1822	8,021,331	Economie politique, finance, &c.	2,516,577
1823	8,249,455	Philosophie	1,686,813
1824	9,559,141	Beaux Arts	1,217,069
1825	10,667,540	Militaire	913,909
	74,825,983		74,825,983

By dividing these 71,825,983 volumes, by 7,500, the result will be nearly 10,000 different works published in the course of those years. How many of those works are known in the United States?

The *Bibliographie Francais* will be published once a month, and offer a sketch of all the works, pamphlets excepted, which will have been published three months previous to the appearance of each number. At first it will simply be a list of the titles of foreign works with a few explanatory notes. But should I receive the encouragement which such a publication is justly entitled to, I shall give notes comprising a fair and extensive analysis of those works with additional sheets. These notes will be a summary of the articles of the *Revue Encyclopedique* of the *Bulletin du Baron de Ferusac*, of the *Journaux des Littératures Francaise et étrangère*, published by MM. Treutte & Wurtz; of the *Journal des Savans*, of the *Haller, Jenaer and Leipziger literaturzeitung*, of the *Repertoir der Deutchen literatur* published by Mr. Cnoblorh, &c.

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* I have prepared this table according to the "*Notions statistiques sur la librairie, par le Comte Daru.*"

Although I do not pretend to present myself before the public as a judge of the knowledge and merits of others, still I am capable of giving an annual and complete repertory of French literature. This admits of no difficulty owing to the extensive journal on book trade published in Paris, by Mr. Beuchot. From this journal will be derived in a great measure the materials for the early numbers of my work.

CHARLES DE BEHR.

New York, June 25th, 1828.

Terms and Conditions of the Subscription.

The "*Bibliographie,*" consisting of 16 pages will be published once a month, in a style similar to that of the annexed specimen. At the expiration of each year, I shall deliver to the subscribers three tables under the following heads:—Alphabetical table of the works. Systematical table of the works, and an alphabetical table of the names of the authors.

The terms are $3 a year, payable in advance.

Subscriptions received at the office of the American Farmer.

(From the New York Advertiser of August 12.)

LATEST FROM FRANCE.

The ship Olymphia, Wood, arrived yesterday morning, sailed from Havre on the 2d ult.

Paris, June 27.

A French courier who left the head quarters of the Russian army on the 13th inst. brought the following bulletins of the operations of the Imperial troops:—

Camp of Satounnwa, 11th June, 9 P. M.

After our troops had forced the passage of the Danube on the morning of the 8th, the river was covered throughout the whole of that memorable day with vessels transporting our soldiers and artillery to the positions abandoned by the enemy.

On the 9th, the passage of our troops was continued. In the afternoon, the emperor himself set foot on the Turkish territory. He traversed the Danube under the guidance of ten Zaporavian Cossacks.—Their Hettman, once a Pacha with two tails, held the rudder. By a singular coincidence, his majesty received intelligence the same day that the Schah of Persia had named after him one of the regiments of his guard. He visited all the positions abandoned by the Turks, and presented Marshal Wittgenstein with one of the cannon found in the Turkish works. On his return, the emperor embarked with the same Cossacks, and was reconducted by them to the Russian bank.

The bridge over the Danube is finished; a brigade of cavalry is at this moment crossing it, and the whole army is about to follow.

Head Quarters before Braila.

Field Marshal Wittgenstein reports that the operations for reducing Braila, which continue with success, will soon be completed, and that the flotilla arrived from Ismail will probably intercept all communication between the fortress and the opposite bank of the river.

COMMERCIAL RECORD.

London Markets, June 27.

The cotton market continues dull, in consequence of unfavourable accounts from Liverpool, and the quantity offered on Tuesday at public sale, did not exceed 1200 bales. Our importations up to this date amount to 245,286 bales—being a deficiency of 100,000, up to the same date last year.

Havre Markets, June 30.

Notwithstanding the arrivals of cotton have been considerable during the past week, our prices are well sustained, in consequence of the general opinion that the supply from the United States for the remainder of the season will leave an important reduction. The sales of the week are 1454 bales, viz. 673 Louisiana, at 90 to 110; 687 Georgia, 65½ to 100 first price, for some very poor,)—12 bales Louisiana Sea Islands, 170. The arrivals, are 7398 Louisiana; 2638 Georgia; 1238 Pernambuco, and 79 Hayti—total 11,353 bales.

Our present stock is 51,123 bales, including 43,649 United States. Last year the stock was 66,624; and 56,164 United States.

The sales of Potashes consist of 150 bbls. New York, (new,) at 40.50; 40 bbls. 1827, at 40; 240 bbls. (208 re-marked 1828, and 199 first sort,) and 82 first sort 1827, 39.50; 40 bbls. (37 first sort,) 40.50; and 25 bbls. 1828, 41. 75 bbls. new Pearls, recently received from N. York, have been sold for 42.25. 50 tierces new prime Rice have been sold for 22.50 in bond; and another lot of 15 brought 26, duty paid.

WOODSIDE INSTITUTE,

For Practical Education and Agriculture,

Embracing the leading features of Fellenberg's establishment in Switzerland, will be opened on Monday, the 8th of September next, and conducted by John M. Keagy, M. D.

The year is to be divided into four terms of twelve weeks each.

Pupils may remain, during the vacation, free of charge.

None shall be admitted without testimonials of previous good behaviour, or for less than a year, and three months payment will be required in advance. The fee will be 200 dollars per annum for boarding, washing, mending, bedding, and tuition.

Parents may be exempted from any claim for books, stationery, &c. by paying twenty dollars per annum.—No other incidental expenses are contemplated.

The number of pupils to be admitted as boarders, at present, will be limited to *twelve*. To these will be added, as day scholars, the children from one family on the farm.

Each pupil, besides a supply of clothing, should bring with him an umbrella, and materials for keeping his head, teeth and shoes in order.

Woodside Farm is one mile west of the Schuylkill falls, from which it is elevated nearly 200 feet. The situation is proverbially healthy.

Further particulars may be obtained from Jeremiah Warder, at Race street wharf, (Philadelphia,) or on the premises. *Aug.* 15.

TO MANUFACTURERS—VALUABLE PROPERTY FOR SALE.

That most desirable seat and tract of Land, lying in Halifax county, North Carolina, on Big Fishing creek, 3 or 4 miles below the intersection of Little Fishing creek and Big Fishing creek, and about 30 miles above Tarborough; the same distance below Warrenton and Louisburg; 20 from the town of Halifax, and 60 miles from Raleigh—containing 2000 acres of Land, all adjoining, and the greater part well adapted for corn, cotton, tobacco, &c. Mill Brook has a never-failing stream and an extensive Mill House, with four pair of grists in a breast—one pair French burs, one pair Cologne, and two pair sopus; bolting screen and fan; one corn crusher; two cotton gins; 50 and 54 saws; one saw mill—all under one roof. A tumbling dam nearly 100 yards long, with a pen of hewn timber, tithed across and filled in with rock, spoiled and sheeted, forming a tumbling dam perfectly safe in all freshets, having a permanent rock foundation. Within the distance of about 200 yards north of the mill, is an elegant situation, high and dry, with a very spacious two story Dwelling House, (built in a modern and tasty style,) and all other necessary out-houses—a first rate well and spring of water attached thereto, with the additional advantage of many fine springs on the premises. It is, no doubt, a very healthy place, from experience of 24 years ownership and residence thereon; which renders it, in every respect, truly valuable, and justly merits the attention of any gentleman or capitalist who might feel a wish to erect various manufactories, &c.—as for instance, carding and spinning works, weaving, &c., and many others, to favour an adventurer; who, on such an occasion, might find it greatly to his interest to view the premises, and judge for himself; and who, I venture to assert, cannot fail of being pleased, as it is truly a romantic situation. Mill Brook will be sold low for cash, as the improvements cost me half the amount I might be disposed to take for the whole; or I would take part, or all, in Negroes, if the terms could be agreed on. Should I not sell at private sale, on or before the 8th of September next, it will, on that day, be sold at public auction, on the premises, to the highest bidder—at which time further particulars will be made known. Possession can be given immediately. ISAAC HILLIARD.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 8.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 274 hhds. Maryland, and 19 hhds. Ohio.

Flour—white wheat family, $6.00 *a* 6.50—superfine Howard-street, 5.00 *a* 5.12½; city mills, 4.87; Susquehanna, 4.75—Corn Meal, per bbl. 2.50—Grain, best red wheat, .95 *a* 1.00—best white wheat, 1.10 *a* 1.25—ordinary to good, .85 *a* .95—Corn, .33 *a* .35—Rye, .42—Oats, bush. .20 *a* .22—Beans, 1.25—Peas, .60 *a* .75—Clover seed, 4.25—Timothy, 1.50 *a* 2.25—Orchard Grass Seed, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—Bacon, hams, Balt. cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Marketing—Butter, per lb. .12½ *a* 25; Eggs, dozen, 12½; Potatoes, bush. .75; Chickens, dozen, 2.00 *a* 2.50; Beef prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6½ *a* .7; young Ducks, doz. 2.50; young Lambs, dressed, 1.75; Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, per lb. .8 *a* .10; Soft Crabs, doz. 1.50; Hard do. .12½ *a*. 18¾; Peaches, 1.50 per peck; Pears, .50 *a* .75 per peck; Apples, .12 *a* .25 per peck; green Corn, .10 per dozen.

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AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

(Continued from p. 171.)

Every one who remarks the condition of the fleece when offered for sale, is aware that a great number of extraneous substances are mingled with the pile. The purest fleeces of Britain, which on account of their excellent qualities might rank with those of almost any other country, are generally encumbered with yolk, sand, grass, pitch, and even the excrement of the sheep. We know not whether it be possible for the grower to obtain his wool perfectly pure and undebased, without incurring an expense which in many cases could not be reimbursed; perhaps spending more time and exercising more labour than would be compatible with the attention, which the more important duties of the farm require of him. Yet, without sacrificing his interest to unnecessary precision, it is desirable that the staple should approach as near as possible to the state of absolute freedom from every thing that imposes a tax upon the manufacturer, or renders his employment more tedious and difficult.

The yolk, which has been so intimately mingled with the pile through the whole period of its growth as to form with it a compact and almost impenetrable coat, does not completely separate itself from the wool by the mode of washing adopted in Britain, even though the operation be performed in the best constructed pool, and by the most careful workmen. The Spaniards, more aware of the advantages which result from the purity of the pile, shear their flocks without subjecting them to the alarm which agitates most quadrupeds when forcibly plunged into an element for which nature and their habits render them peculiarly unfit. The staplers there break the fleece while in the yolk and wash the sorts produced from it with a degree of care worthy the imitation of a British manufacturer, and attain to a point of purity almost unknown in English fleeces. If the sheep be washed before shearing ever so perfectly, and the utmost care be taken to preserve them clean during the interval between the two operations, the perspiration of the animal, when exposed to the fervor of the sun beams and oppressed by the weight of a coat better adapted to the winter months, mingling with the fleece, again debases its staple. English wool in the best state in which I have ever observed it clipped from the back of the sheep, has contained about one-twelfth part of its gross weight of this substance, important to the fleece while growing, but of no value whatever in the process of manufacture; often it is mingled with one-eighth of its weight; if heavily tarred, as in the north of the island, the quantity of pure wool seldom exceeds one half, and in some cases is even considerably less than that. The very great difference of condition in which British fleeces are brought to market, accounts in some measure for the variation of prices, which are often mentioned as the current rates of wool, in distant districts during the same season. To form a proper idea of its intrinsic worth, and to obtain a well founded opinion of the relative value of our own fleeces, or those which are imported from other countries, it is necessary to reduce them to the standard of perfect purity, to compare only wool with wool. That point is already determined by the treatment to which wool is submitted while under the hands of the manufacturer. In some part or other of the process, by far the larger proportion of the pile is scoured with soap and boiled in water; and when it will endure this operation, without losing a portion of its weight, we venture to pronounce it sufficiently clear of yolk for all the purposes of manufacture.

The present mode of washing sheep in some parts of the kingdom, especially where water is scarce and the shepherds careless, instead of separating from the fleece all the sand, clay and other kinds of dirt, with which it is encumbered, supplies it with a still larger proportion. The inefficacy of plunging the sheep into stagnant water and muddy pools, of driving them two or three times through a rivulet rendered turbid by their passage, we should suppose is obvious to all; and the inconvenience which often arises from driving them while wet along dusty roads, of lodging them in that state upon dry fallows and sandy soils, is visible in the colour and the grittiness of the staple. It is seldom that we examine a parcel of wool without finding more or less of those substances, which render it impure, and are thoroughly convinced that it is not always possible even for the most careful farmer to prevent its contamination. The conduct of many graziers, who, during the period in which the fleece is preparing for the shearer's office, watch it with unremitted attention, and endeavour to obtain their wool free from every alloy, is an annual reproach upon those who seem to wash their flocks without any definite object, because it is the custom of the district where they live, and who neglect them entirely while their fleece is drying.

The custom of marking sheep by means of melted pitch or a mixture in which it forms the principal ingredient, is very detrimental to English wools, especially the larger kinds; often rendering them absolutely incapable of being applied to the manufacture of worsted goods, their natural and appropriate destination. It has long been complained of, and premiums offered for the discovery of a composition, which shall answer the same purposes, without being injurious to the staple. The brand, as it is at present used, causes a great deal of trouble and some expense, for in the early stages of the manufacture it must be separated from the fleece, and boys are generally employed in performing this service, at the rate of a shilling or half a crown per week. The wages given for this work, when not combined with any other, is commonly about a farthing where employment is scarce, in other places a halfpenny, for every pound of branded wool.—When a fleece has been rolled up, according to the usual and legal method of winding every part of it is so distended, often so torn and mingled together, as to render it utterly impossible that the workman should spread it before him in its natural order.—He is then obliged to spend a great deal more time, than would otherwise have been necessary, in examining every fragment which passes under his eye, and in searching for the pitch mark, which is always extended over a considerable space, and sometimes entangled with every other portion of the fleece. When separated from the other parts he throws it to one general heap, which passes to the clipper, and when sufficiently cleaned, returns to himself, and undergoes a second time the operation of sorting. But when sheep are not branded with pitch, or any other substance injurious to the staple; none of this additional expense and labour is incurred, every part of the fleece goes off from the board to its proper sort, and is immediately ready for the manufacturer. Perhaps the best mode of preventing the inconvenience, which the brand occasions, would be to take it from the fleece before the sheep be shorn; then it is easily found, is compact, and might be separated from the wool with little trouble to the shearer, or inconvenience to the person who employs him.

We are pleased to observe that of late years sheep are not commonly allowed to carry behind them those immense loads of their own excrement which so frequently disgraced the most verdant and beautiful of pastures. At present they are generally kept clean and unencumbered; a symptom of their owner's improving taste and humanity. Nor have the staplers so much reason to complain of those shameful deceptions, which were once attempted to be practised upon them by rolling up a large quantity of the fæces with the fleece, in order to increase its weight. At present, if deceptions are practised by the grower, they are commonly those of a more ingenious kind, such as he thinks will always remain undiscovered, or that the vestiges of them will be traced to some other cause than the moral turpitude of his disposition. Yet when we find a line of sand strewed along the unrolled fleece, or trace the evidences of its being wound in a moist state, circumstances which even a novice in sorting can distinguish; when we notice that the parcel is piled upon a damp floor, in the north east corner of a barn, far from the influence of the atmosphere and the sun, as though jealous of their evaporating power; when we see these things, we cannot help attributing them to some cause not always accidental. And should such parcels be weighed by the stapler with a little unusual dexterity, the grower must not be severe, for one deception is instituted only to counteract the effects of another, and it would be a mere chance which was most successful, had not the stapler the advantage of being last player; as such he is almost certain of winning the trick. But we plead not for deception; the man who stoops to use it is a villain, and his character ought to be posted through society. In these enlightened times but few, we hope, are so destitute of honour and integrity, esteem the consciousness of virtue at so low a rate, and understand their interest so little, as to ask the favours of fortune, by sacrificing at the shrine of dishonesty, the first principles of social order.

It is not probable that persons, whose attention is repeatedly called to the properties of wool, should be entirely ignorant of the readiness with which it imbibes moisture, but perhaps few are aware of the tenacity with which it retains it. A quantity of wool, which betrayed no symptoms of an extraordinary degree of moisture, has been submitted to a strong degree of heat, and dried even to crispness. When examined, being still warm, it was found to have lost one-eighth part of its original weight, which it nearly recovered in a few days by being exposed only to the common influence of the atmosphere. Perhaps this disposition to attract moisture may be the circumstance, which has led some to suppose that wool grows after it is separated from the sheep. The fact is not probable; and the increase of weight, the only circumstance upon which the opinion rests, is easily accounted for upon more satisfactory principles.

At the genial season, when flocks are disburthened of their coat, and pay the annual tribute due for the protection and sustenance which they have received, it is common to collect them within some grassy enclosure near to their owner's dwelling; often within the precincts of Pomona, where, with ruddy smile, she ripens her autumnal blessings.—With the best intention, the superintendant of the busy scene directs that the sod be smoothly shorn, but unsuspectingly produces, by that means, a vast variety of short bits of grass, which, notwithstanding his utmost care, attach themselves to the staple, and are rolled up with the fleece. They do no material injury to the pile, but cause a great deal of trouble to some future workman who picks them out of it; for at some stages of the process through which wool passes before it reach the consumer, they must be separated. If twisted into the thread and wrought with the substance of the cloth, they become the object of the burler's notice, who leaves for every particle which is extracted, a hole in the piece, to be repaired at the fulling mill, or by the nicer operation of the fine drawer. The trouble occasioned by the intermixture of dried vegetable particles with the wool is very considerable, whether they be collected from the weeds so commonly produced upon ill-managed land, or from the hay, which, owing to the usual structure of the rack, and by permitting the sheep to pull their fodder from the stack, or to crowd under it for shelter, drops its seed and smaller particles upon the fleece, especially that part which grows near to the head. The shepherds upon the Downs of Marlborough, if I mistake not, have adopted the use of another kind of rack, whose structure promises to obviate some of the objections made to the old one.

Some of these circumstances may be considered as trifling ones, and beneath the attention of the wool grower. Perhaps we may be told, as we have been already, "that several of them are calculated to furnish employment for different classes of work people, who, without it, must become burthensome to the parishes where they belong; that the true reason why we object to the filth of the wool, its brand and the dag-locks, is the price at which they are purchased; and that if the fleece were really rendered lighter and more valuable, by the absence of impurities, staplers would give no more per tod for it than if the parcel had been in a fouler state."

It is wonderful to observe with what an air of sapience these remarks are sometimes adduced; and when disdaining to reply to them, because it is impossible to communicate discernment to stupidity, or to derive information from prejudice, the triumph over us has been undisguised, and sometimes followed by the loud laugh of ignorance. But of late years wool growers have been better instructed in the principles connected with their occupation; have ventured to dispute the wisdom of their great grandfather's maxims, and to differ from antiquated practice. Some of them are now convinced that every expense which the stapler and even the manufacturer incurs, whether it be on account of waste, carriage or labour, falls ultimately upon themselves. They admit this most obvious of commercial maxims, viz: that the price which the consumer pays for an article, is upon an average of years neither less nor greater, than the sum which forms the total of the prime cost of the materials, the expenses incurred in manufacturing them, and the reasonable profit of those whose capital and skill are employed in the fabrication. If, therefore, while the price of goods continues the same, and the unavoidable expenses in producing them vary; if there be any alteration in the total sum, whose items we have just described, then the surplus, or the deficiency, must be placed to the account of the farmer, and his pocket will undoubtedly receive the one, or be obliged to furnish the other. This position would be most abundantly verified, did it require any confirmation, by adverting to the history of the woollen manufacture only during the last twenty years. It is the interest, therefore, of the wool grower to contrive, by every possible means, to reduce the necessary expenses of the manufacturer; to send his wool to market in that condition which will require the least time and labour to return it to articles adapted to the common purposes of life. No circumstance connected with this object can be trifling. No measure, calculated to attain it, can be unworthy of notice. It is not possible that a person of common sense should really suppose that the stapler purchases dirt and impurities of any kind, which happen to be combined with a parcel of wool, at the price given for the staple. In appreciating fleeces, the waste, carriage and expenses of every kind, must be objects of calculation; they form a sum to be deducted from the intrinsic value of the fleece if in a pure state, and both manufactured and consumed upon the spot where it is grown. The farmer, then, who sends filthy wool to market, transports manure which might be well applied upon his own land. He sends it to the fields, sometimes of far distant counties, and pays for the carriage of it thither an extravagant price.

In the management of wool, especially if we would obtain it in a perfect state, the time of shearing, though not of prime importance, is a circumstance deserving of some attention. It has frequently been asserted that the fleece, if left entirely to the operations of natural causes, detaches itself from the skin of the sheep, and falls off, leaving the animal covered with a short and soft down, which proves to be the new coat in the incipient stage of its growth. The effect takes place during the prevalence of hot weather, and may justly be considered as one mark of that wisdom by which the Creator, always provident for the comfort of his creatures, has distinguished every part of his works. Yet the decidence of the fleece does not appear to be a characteristic feature of the tribe, an universal law to which all sheep are subject, because some individuals have been observed to retain their coat through two whole years, a few have carried it even through three summers. We are not aware that this faculty of retaining the fleece is entirely confined to any particular breed of sheep; it has been noticed in several of the English varieties, both those of the native stock and mingled with a foreign race, and the fact is not entirely unknown either in Spain or in Germany. Nor is it a quality common to every individual. The breeds producing the finer kinds of wool often peel or loose a portion of their coat early in the spring, and before the summer had passed would probably part with the whole of it in the same manner, did not man interpose and appropriate to his own use that covering, which has become superfluous to the quadruped. The pile of the long-woolled sheep seems to be much more firmly attached to the pelt than that of the other breeds, for if the animal be kept in good condition, and in good health, throughout the whole period when the wool is growing, and if well attended by the shepherd, so as to promote its comfort, there is no symptom of a disposition to cast the fleece; it is retained, if the staple be any extention, with equal firmness through the coldest and the hottest seasons, while those sheep which have been kept upon commons all the winter, or even in enclosures upon hard fare, will part with it very easily, when the food becomes more plentiful, and the condition of the animal is restored to its natural state. When the flesh of the creature has declined during the winter months, and nature demands more nourishment than can be procured, the secretion which produces wool seems to be destroyed, or applied to other purposes of nature, and the fleece which has been deprived of it, appears incapable of reimbibing, in the spring, the renewed juices, but remains upon the pelt through the succeeding months, merely a dead substance; and when the natural juices are again secreted, they form a new fleece, which gradually displaces the old one Probably, at first, the new hairs are produced from a scanty yolk, for they are almost uniformly pointed, and grow gradually thicker, until they occupy the whole diameter of the pores through which they pass. If the low condition of the sheep be connected with the decidence of the fleece, and the real cause of it; and since none of the double fleeces exhibit any symptoms of an unhealthy state, or a low degree of flesh during the whole period of their growth; it seems probable that every sheep, if proper care were taken of it, would retain its coat.

Appearances observed in the fleeces, which have grown through two or three successive years, render it probable that the staple ultimately attains its maximum of length; but whether it would continue upon the back of the sheep, or detach itself from the pelt, giving place to a new pile, which would continue to grow through the same length of time, and then like the preceding coat become useless to the animal and be laid aside, we know not. No experiments that I have yet heard of, have been instituted to ascertain the point, nor have we been sufficiently curious in England to note the progress of the growing pile in the different seasons of the year. M. Fink, of Cositz, in Saxony, has communicated to the Board of Agriculture, an excellent paper upon the subject of sheep, and observes, "that by clipping them twice a year, a practice common in Germany, one tenth more wool is gained than by clipping them only once; that a sheep clipped once in two years, will certainly give one third less wool than if it had been clipped four times in two years, and a sheep shorn once in three years, will furnish but half the wool it would have given, if it had been clipped six times in three years." M. Fink adds, "the longer the wool the less quickly it grows, till at last, when it has attained the length appointed by nature, it entirely stops and does not grow longer." Unfortunately this intelligent wool grower, who has detailed his observations in general with a great degree of precision and perspicuity, has not informed us whether the different proportions which he has given us, of the fleece grown through one, two, or three years, be deduced from the weight, or measure of the staple. If from the former, was the wool washed or in an impure state? If weighed in the yolk, the proportions which have been stated, may be very erroneous; because the fleece which has grown through more than one winter exposed to the moisture of the season, may have lost a very considerable quantity of that yolk, which it would have retained, had it been shorn at two separate periods. This very curious paper, although unsatisfactory upon this particular point, deserves the closest attention. It relates facts in the natural history of the sheep not commonly met with; and intimates that the wool of the larger German breed attains its utmost length when continued upon the back about four years, and even then exhibits no more symptoms of separating from the skin, than the hair does of falling after the same period of growth from the human head. It furnishes [illegible] that the utmost length of staple produced from that race of sheep is about thirteen inches, and leads us to conjecture, that with proper care, every animal of the species might be rendered capable of retaining its coat through any length of time deemed convenient.

Hence it appears that the time of shearing, if the flock be in a healthy condition, may be regulated entirely by the will of the shepherd, and the kind of wool which he found it most advisable to cultivate. If the prejudices of the country would admit of it and the manufacture required a very short and delicate staple, such would be easily procured by shearing the fleece at two different seasons. The wool which had grown through the winter quarter, if we may judge from the prices given for it by foreign manufacturers, who are accustomed to work both the spring and the autumnal fleece, would be more valuable than that, which is produced only in the warmer season. But the difference in price is more than compensated by the additional quantity of wool; and for several years it was observed, when the price of the article was advancing, that the autumnal fleece in Germany sold for more money than that which had been shorn and disposed of in the spring of the year. Most of the breeds of fine-woolled sheep in Britain, it should be recollected also, produce a staple complained of by those who fabricate it into woollen cloths, on account of its exorbitant length; a defect which would be most effectually remedied by clipping it more frequently. But in this country where woollen manufactures are established most various in their nature and object, and not less so in the materials they require, the shears must be used with extreme caution. A large proportion of the British fleeces would be entirely spoiled, if separated from the animal oftener than once in the season. The worsted manufactures almost universally demand wool of twelve months growth; the hose trade could scarcely subsist without it; and some portion of the pile yielded by the finest of our flocks, is so tender as to require its utmost length, in order that it may pass without injury through the process of carding and of fulling. Yet there are numerous fleeces, whose good qualities I am persuaded would become more conspicuous if shorn more frequently, and whose particular destination in the course of manufacture does not forbid it. (*To be concluded in our next.*)

ON SEED.

Dayton, Ohio, 1821.

Is there a principle in nature which causes the production of vegetables, without seed, that is, without that perfect formed seed which is afterwards produced and employed in reproduction? is a question I have often proposed to myself, and is one which has afforded me no small matter for contemplation. Although it may be a question which is not immediately connected with practical agriculture, yet its examination, as furnishing variety, and perhaps matter for useful reflection, it may not be wholly unacceptable to your readers.

It is impossible for us to fix a boundary or limit to that power which has produced such wonderful works, as we see every where displayed in the natural world; our question therefore, if affirmatively answered, involves no inconsistency, and can only be viewed as at variance with common observation. My own conclusion has long been, that by a certain combination of chemical and natural causes produced in the earth, vegetables are produced spontaneously and without the seed which afterwards produced, and which ordinarily produces them. Perhaps I am vain and arrogant, when I undertake to define any particular cause, and should go no further than to say, that at the original creation of our earth, among the great number of laws fixing and regulating its operations, one among them was intended in some way to produce the result we have stated.

Living as we do, in a country which has recently been reclaimed from a wilderness state, and which is at this time in the hands of the husbandman for that object, and much of which yet remains to be reclaimed, we perhaps possess greater means for a satisfactory determination of this question than older cultivated countries. I will, therefore, in support of my theory, and which to many may appear visionary, state my own observation, much of which will be familiar with all, and no otherwise novel or interesting to any, than as applied to the subject, which is, I believe, novel, and to me not without its interest.

No historical record, or traditionary legend, fixes upon any period when the wilderness of Ohio was under cultivation by civilized man, although the whole face of the country affords abundant indication that at some extremely remote period, such was the case. It cannot be supposed even from the confused data thus afforded, that less period than one or two thousand years have elapsed since such was the case, and that during this period, the country has been covered by its interminable forests. Indeed, the wildest conjecture cannot fix upon any definite period, and our conclusion can only be, that from a multitude of ages, the earth has been covered by its forests which totally prevented the growth of vegetables, which now spontaneously spring up where the forest is removed. One or the other inference must be drawn; either that the seed of such vegetables as thus do spring up, have remained dormant in the bosom of the earth during this long succession of ages, or else, there is a principle and law of nature which causes them to spring into existence without the seed ordinarily produced. I will not deny that among the infinity of nature's laws, displaying the goodness and wisdom of their great author, that the principles of putrefaction and decomposition, will not operate upon a substance, whether vegetable or animal, which contains within it the vital principle, that such vital principle will continue to preserve the substance containing it, until it shall cease to exist; yet, is it not more rational to suppose, that such a principle as we contend for exists, rather than to suppose, that the earth is, as it were, satturated with such a multitude of seeds of innumerable varieties, as it must be, in order to produce the results which every day occur, and that this vast magazine of seed has hitherto eluded our observation.

Suppose me for a moment to state my own observation. Last year we had cleared some six or eight acres of new land which was covered with forest. It was fertile as new lands ordinarily are, and having been cleared during the last winter was broken up in the spring and planted principally in corn. It was cultivated as our new lands generally are, having in consequence of its rough and rooty state, received only one ploughing, without being troubled with the hoe, trusting to its extreme fertility to produce us from sixty to eighty bushels of corn the acre, and anticipating from its new state, the absence of weeds. In passing through it a day or two since, although there were but few weeds among it, yet I may say, that the greatest number of any one kind consisted of pursley, as it is ordinarily termed. Now from whence did this pursley derive its origin, except from the principle I have stated. The common opinion is, that seeds will remain in the earth but a few years; it is a plant very little eaten, if at all, by any other animals than swine; from the creeping nature of the plant it is not to be supposed that the seed to any extent is scattered by the wind; nor can any reasonable manner be stated how the seed should be uniformly scattered over the field in question. It was to be seen in the neighborhood of cultivated ground where pursley grows, and if a plant had been found only here or there, it might be supposed that the seed had been in some way conveyed; but, I cannot suppose our forests to be every few years covered with the seed of pursley, which upon any other principle must be the cause, because clean where you will, and plough the ground, and you will find it covered with pursley the first season after its being reclaimed.

White clover, and perhaps red clover, may be regarded as among those natural products thus spontaneously produced. During the last war, parties of teams passing from the settlements in Ohio through the wilderness to Detroit, when they encamped for the night, would necessarily clear small patches in procuring wood for their fires. In passing the following season those places would be found covered with what we call the tame grasses, although no hay were perhaps, in any instance, transported so far into the wilderness. This, however, was no otherwise remarkable than as shewing the great bounty of Providence in providing such facilities of reproduction. The grass seeds were no doubt dropped with the manure, having been eaten by the animals several days previous. Yet, in passing these spots some three or four years after, far in the wilderness, a distance of forty, fifty or sixty miles and beyond that, from even the appearance of cultivation, far from any road ordinarily travelled, they would be found covered with a most luxuriant and verdant carpet of white clover. It could only have had its origin in the cause I have stated. Indeed, you may clear a spot among the valleys of the Rocky mountains, and white clover after a proper period will cover the surface.

When a youth, my father owned an extensive mill in one of the eastern states in which large quantities of plaster was ground. Opposite the mill the freshet had broken through and swept away all the soil, so that the surface presented nothing but coarse ground, indeed stones. I once amused myself with writing my name upon this ground with plaster, where there was no appearance of vegetation, and several times repeated it. I may have been deceived, and a trick imposed upon me; I do not however, think so; at any rate after some months the clover made its appearance, and although not luxuriant, yet sufficient appeared to mark where I had sowed the plaster.

Perhaps, however, there is no one plant which affords so conclusive an argument in favor of my theory, as the plant we call the fire weed. When we clear our new lands, the timber is rolled in heaps and there burned. Whenever these heaps are burned, the fire weed uniformly springs up most luxuriantly, covering the surface, nor have I observed it any where else. It hardly ever is found the second season, and seems to be produced entirely by the fire. It follows most conclusively to my mind, that whenever a certain combination takes place in the earth appropriate to the production of any particular vegetable of the kind thus spontaneously produced, that such vegetables will vegetate with luxuriance, although the ordinary seed for the production of them does not there exist.

Perhaps the investigation of such a subject may be regarded as attended with no practical advantage, yet I cannot consider that any one proposition connected with the vast volume of the works of nature is unworthy of research and investigation.— Even if such a ramble among the beauties and wonders of creation, shall afford us an innocent relaxation from the more tedious routine of laborious application, it is not without its use. The lambkin cannot skip without teaching us the lesson that innocent pleasure and recreation is comprehended in the great plan of universal love and benevolence.

H. B.

ARTIFICIAL GRASSES

Adapted to the Southern States.

[Further communications are respectfully invited on a topick of so much interest to so many of our readers.]

Richmond, Va. July 28th, 1828.

Sir—Knowing that your attention has been long turned to the subjects connected with the agriculture of the country, of which you have been both a zealous and useful promoter, I have taken the liberty of addressing you this communication, being assured that you would feel a sincere gratification in aiding my inquiries. In our arid and very uncongenial climate, the discovery of such grasses as are best suited to it, is one of the most difficult and important subjects to which the attention of agricultural men can be directed. It is a problem on which my mind has been long at work, and has in reference to it been enabled to arrive at no safe conclusion.— With the assistance of artificial irrigation we are enabled to do tolerably well, but where the resource just mentioned fails us, every thing is exceedingly precarious. On high lands, especially on such as from the shape of the surface, or the constituent parts of the soil, are liable to drought, or to washing in heavy rains. I have been strongly urged to try a grass which with the common people here, and by Col. John Taylor, in some of his essays, is denominated the Highland Meadow Oat. I perceive that in some treatises it is called the Peruvian Grass or Paspalum Stoloniferum, but in others it is said that the latter grass is too tender for the colds of our climate, and is not the real highland meadow oat; that this last is the avena elatior, or oat grass much cultivated about Philadelphia and Lancaster, and also in the state of Delaware. My chief purpose in addressing you is to engage your good offices, if you are acquainted with the grass which I am in quest of, and without too much trouble can do so, that you will put me upon some plan by which I can procure some of the seed.

Very respectfully, D.

Mr. J. S. Skinner, Esq.

Sir—A few weeks ago I received a letter from a distinguished gentleman of South Carolina, lamenting their total destitution in his section of country, of all valuable grasses, and requesting me to communicate by letter, my views in relation to those most esteemed in my neighborhood, together with an opinion, as to the probability of their succeeding in the soil and climate of Carolina, which he very particularly described.

The following extract is substantially taken from my answer—I say substantially because as I kept no copy of my letter I give it from memory. If you think it calculated to be interesting or useful to your southern readers, by directing their attention towards that important branch of agriculture which has been heretofore almost totally neglected by them, you can give it an insertion in your valuable journal. Respectfully yours, D.

August, 1828.

Dear Sir—Yours of the 8th ult. has been received, and I take pleasure in complying with your request in giving you my "views in relation to the most valuable grasses cultivated in this neighbourhood, with my opinion as to those best adapted to your soil and climate, and the probability of your success in an attempt to grow them."

For the last eight or ten years both myself and my neighbours, many of whom are amongst the most scientific, practical and observant farmers in our state, have bestowed much attention and been at some expense in the selection and cultivation of those grasses generally esteemed the most valuable, and after a full and fair experiment of all such within our reach, we have been led to the conclusion that the orchard grass (Dactylis Glomerata) combines more valuable properties and possesses superior advantages to any other. It is about ten years since the orchard grass was introduced into my neighbourhood, and the experience of every year increases our opinion of its value. For your information I will now state some of those valuable properties which induce us to give it the preference to any other. The orchard grass grows rapidly and upon soils too much exhausted to bring clover, it resists the hoof and the tooth and bears the frosts of our winters and drought of our summers better than any other; from this circumstance it affords the earliest and latest pasturage: it is amongst the most nutritious food for fattening cattle and for milch cows; for sheep pasture it is unequalled, as even in our climate it affords an abundant bite throughout the winter; indeed I have for several years past supported my flock of sheep upon it exclusively, never giving them a mouthful of any other food, except when a fall of snow rendered it inaccessible to them, and I have in the months of February and March killed as fine fat mutton off my orchard grass fields as you could desire to see; this grass possesses the remarkable peculiarity, that it does not, like the second growth of every other grass, cause that excessive flow of saliva which is so debilitating to horses and other stocks; for land intended for permanent pasture, I should prefer it to any other, as I have never had occasion to renew a field which had been once sown with it while clover, timothy, and I believe every other grass require to be renewed every few years; indeed, from the following fact, I should conclude that it would never (as farmers say) run out. Nearly thirty years ago a lot near Ellicott's mills was sown with orchard grass, and for several years fine crops of hay were cut from it; however, from neglect, the fencing got out of repair, and the lot was turned out into the common exposed to the whole stock of the village for a number of years; the proprietor again took the management of the property, a few years ago, and without sowing a grain of seed, has annually cut fine and heavy crops of hay from it. For hay it is thought to be at least equal to timothy which has generally been esteemed our best grass. Judge Peters of Philadelphia (the president of the Philadelphia Agricultural Society) whom you no doubt know by character, who has cultivated it for nearly forty years, thinks it decidedly superior to timothy, and gives it the preference to all others. Notwithstanding the well known prejudice of agriculturists against all innovations upon long established practice, and their almost unconquerable repugnance to every thing like improvement, we find that the reputation of this grass and its cultivation, wherever it has been introduced into a neighborhood, is most rapidly extending; indeed, so great has been the request for the seed, that for several years past the supply has been inadequate to meet the demand.

As to the probability of its succeeding in your section of country, the soil of which you describe, as consisting "principally of a fine black mould or loam, with a large proportion of sand to the depth of five or six inches," I can only state, that I have never tried the orchard grass on such a soil, nor is there any of so light a description in my neighbourhood; but it is now cultivated on the eastern shore of this state, the soil of which I should suppose very much to resemble yours; it is also cultivated by a friend of mine on James River, Va. whose soil and sub-soil answers prescisely to the description given of yours; he finds it to thrive well and thinks it a most valuable grass. From the fact of its resisting the parching droughts of our summers, which for the last 6 or 8 years have almost invariably destroyed our clover and other grasses, I can hardly have a doubt of its proving a most important acquisition to your southern country; and the circumstance of its bearing so well the severity of our winters induces me to believe that in your climate it would remain in full verdure throughout the year. I have cut from it two crops of hay in the same season and with you it would certainly bear more.

The usual time of sowing the orchard grass here, is in the spring with oats, or on the wheat or rye sown the preceding fall, or in autumn, at the time of sowing wheat or rye. We generally prefer sowing in the fall, and with you it would unquestionably be best, as it would enable the grass to take such root, and get such a growth, that it would not be endangered by the hot sun of the succeeding summer; if not convenient, it might be sown alone without the covering crop of wheat or rye. In your soil and climate, I should suppose that it would answer well to sow it at any time during the month of September, October or November, although I think the earlier the better. The crop of grass will be light the first season after it is sown, but you will find it to thicken very much afterwards. Since the general failure of our clover crops, we consider the orchard grass as more fertilizing and improving to the soil, than any other, from its thick covering affording such complete protection from the frosts and sun.—The quantity usually sown is from one to two bushels per acre. I should prefer the latter quantity, as the seed is light and chaffy. The period of cutting it here is about the middle of June, but of course would be earlier with you;-the proper time being when the seed is formed and is maturing.

I have thus (although imperfectly I fear) given you my views in answer to the queries propounded in your letter, but for a more full and particular account of the valuable properties of the orchard grass, than the compass of a letter would permit, I would refer you to several communications from Judge Peters and others, published in the early volumes of the American Farmer.

In conclusion, I would barely remark that if your state should (as from certain indications she now seems disposed) turn her attention to grazing stock and rearing sheep, I am convinced that in the orchard grass she would find that she had acquired a most important desideratum, and that it richly merits the reputation it possesses wherever it has been tried.

It is hardly necessary for me to add that if you should at any time hereafter wish any further information upon the subject, that it will give me pleasure to furnish any which I may possess.

I am with respect,
Your obedient servant,
———— ————

Hon. ————
South Carolina.

TO SAVE ORCHARD GRASS SEED.

When the head has a whitish cast, and when shook, the seed drops, cut it with the sickle or cradle, lifting the grips out of the cradle; handle grips or swarths as little as possible; therefore, neither bind them or shock them, but let them be gently gathered and carried into the barn floor in a sheet, by hand, or in a cart on sheets spread in the bottom of the cart; beat it out by grips, by striking the grips against any instrument; for instance, a narrow plank, fastened either perpendicularly or horizontally, or by any other contrivance; four strokes, generally, will take out all the seed without the chaff; riddle it; the seed will go through, the stalks, &c. will remain in the riddle to be thrown away; lay down the beaten grips in a pile till you clean up the floor, with the butts even; bind them in sheaves, to be cut and mixed with chop, bran, shorts, &c. for feed to stock. By this process, the hay is not lost, which would be the case by threshing, instead of beating out the seed. Two men will clean 50 bushels a day.

PROLIFIC WHEAT.

On the farm of John Steel, Esq. of Richmond county, N. C., from one grain of wheat, there grew 191 stalks: on these stalks were 151 heads, averaging 3½ inches in length. Unfortunately the bunch of wheat took the rust, and the grain did not come to maturity. It was the Maryland white flint wheat.

[*West Carolinian.*

PROSPECT OF CROPS.

Extract to the Editor, dated Albemarle county, Va., August 12, 1828.

The prospects of both the farmer and planter, have been greatly disappointed in this part of Virginia. The crops of wheat, which in the early part of the season had been very promising, was materially injured both in quality and quantity by the rust. A few crops, which were harvested early, sustained but little injury. Some of the early wheat, particularly on James river, was injured by the frosts in April. There will be an unprecedented failure in the crop of tobacco, throughout the whole tobacco making district—produced by a combination of causes, a great scarcity of plants, want of seasons in due time, and a continued drought since about the middle of June to the present time. It is impossible to say at this time what proportion of an average crop will be made. It must fall far short of any crop raised in Virginia for many years. The long and extensive drought has been peculiarly disastrous to the corn crop. In this part of the county we have not had rain sufficient to wet the earth one half inch since the 17th of June, until Sunday night last, the 10th inst., nearly eight weeks. It is true, some parts of the county have been more favoured with rain, while there are other parts which have suffered equally if not to a greater degree. I fear the rain has come too late to produce much effect on the corn crop, except on the low grounds and flats of creeks and branches. I think the drought more fatal than the one in the memorable year of 1806. I have seen some small fields of high land corn, and many acres together in large fields, which will not produce two bushels to the acre; some not that much. I have heard of others equally as unpromising. We are, however, fortunate in having a greater quantity of old corn and other old grain on hand than usual at this season of the year. I had expected to see communications from your correspondents in other quarters relative to the effects of the drought on the growing crops, as I understand it extends a considerable distance to the south and west. Wishing you success, and a continuance of your useful labours,

I remain yours, respectfully,

WM. WOODS.

HORTICULTURE.

(From the New York Farmer.)

A SHORT TREATISE ON BOTANY.

[We insert the following epitome of the pleasing and useful science of botany, under the impression that our readers will value it for its comprehensiveness and accuracy, and for its adaption to the exercise of the juvenile mind.]

What is botany?

Botany is that branch of the science of natural history which treats of plants, including their structure and properties.

Of what use is botany?

Botany, if studied with a view to its profitable application, is of importance to various classes of society. To the farmer, the knowledge of the various herbs, grasses and fruit trees which he cultivates for his own use, and even the weeds which infest his ground and are noxious to himself or his cattle, might be of the highest benefit. It teaches him the kind of treatment as to the soils required by different plants, the nature of the climate and temperature to which they have been accustomed in their native places, and the times and seasons proper for planting and transplanting them.

What other class of society may derive benefit from the study of botany?

The physician is interested in this science, from the knowledge of the properties and chemical composition of various plants, useful for medical purposes.

But is botany of no benefit except from its conversion to some profitable purpose?

Botany, as a mere amusement, affords a delightful recreation and exercise for the mind: the fancy is gratified by the contemplation of the endless variety in forms, and the beauty and delicacy of tints which are found in flowers; while the higher intellectual powers find employment in classifying and arranging them in the different systems which men of the greatest genius have devised to facilitate their study.

Was botany known to the ancients?

Not as a science. Plants have been an object of attention to every race of men in all ages; but the principles now so well settled, and which render the science of botany a philosophical study, are entirely of modern origin. It is a subject of regret that the virtues of many plants known to the ancients are entirely lost to us, from the impossibility of recognizing them from the mere names left of them; names constructed without any reference to their forms or qualities, and no descriptions being given whereby they can be ascertained.

How is botany usually divided in treating of it methodically?

There are many different divisions in which the science might be distributed, according as we are to consider it in theory or in its practical application. At present we are about to treat of it under three different heads, viz: Nomenclature, Classification, and Physiology.

What is Botanical Nomenclature?

It is the language by which we describe the various organs or parts of plants; such as their leaves, stem, flower, fruit, &c., the particular shape and form of each having a distinct term or phrase which easily defines it.

What is Classification?

Classification is the method of arranging plants in certain groups or classes, according to their coincidence in some leading characteristics, such as the number of particular organs, or in resemblance with each other in structure, or manner of producing fruit, or otherwise: so that, knowing on what the system is founded, when we wish to know the name of a plant which is included in the system, we search for it where its congeners, or those to which it is related are arranged; and if the plant has been named and described, it will be found in that place.

How are plants generally divided?

There are two grand divisions of plants, viz: *Phænogamous* or *Phanerogamous*, and *Cryptogamous*—or, as they are sometimes improperly termed, *Perfect* and *Imperfect*.

Can any plant be justly termed imperfect?

Certainly not; for every plant, however humble or unsightly, being the production of an Almighty hand, must be considered as forming part of a great system, and therefore if relatively considered, must be perfect.

What is meant by Vegetable Physiology?

Physiology in botany relates to the internal structure and chemical composition of plants.

Of Nomenclature.

How do you proceed in describing a plant?

First, by considering the root, then the stem, the leaves, the fulcra or supports, the different parts which constitute the flower and those of the fruit.

What is the root of a plant?

The root is that part which supports the plant, and is generally fixed under ground; sometimes it is attached to the surface of other objects. It has various forms: sometimes it is *fibrous*, consisting of many small fibres or threads, by means of which it draws nourishment from the earth, as the roots of most grasses. Sometimes it is *tuberous*, consisting of tubers or fleshy knobs of one uniform substance and texture, such as the root of the potato. Sometimes it is *bulbous*, consisting of knobs not of one uniform texture, but composed of several concentric coats or layers, such as the onion and tulip.

What is the stem?

The stem is the intermediate part between the root and the flower. It is of several kinds. It is called a *trunk* when it is of a woody structure, and belongs to trees or shrubs. When it is herbaceous, or belongs to green juicy herbs, it is a *stalk*. When it is like the preceding, but bears no leaves, but proceeding from the root, supports the flower, it is called a *scape*, as in the tulip.

What are the leaves of a plant?

The leaves are generally green-coloured, membranaceous flat plates, commonly pointed, which grow around the stems and usually fall off at certain periods. There are many varieties of form and shape which they assume, and as many different terms are employed to describe their various outlines. The part that connects the leaf to the stem is called the *petiole*.

What are the *fulcra* or supports?

They are of very different kinds. In some they consist of those appendages on the stem of plants near the leaves, and are called *stipules*. When these appendages are situated under the flower, they take the name of *bractea*. When they serve the purpose of attaching the plant to other objects for support, they are called *tendrils, cirrhi*. Other kinds consist of spines, thorns, glands, and hair or pubescence.

What is the flower?

The flower consists of several distinct organs, most commonly of the calyx, corrolla, and the stamina and pistils; but sometimes these are not all present. The *calyx* or perianth, as it is sometimes called, is the external covering of the flower, generally of a green colour, and sometimes with one leaf with tip divided into segments, and sometimes of several leaflets. The *corolla* is the coloured leaves of the flower, termed *petals*, and also consists of one or several leaves. The *stamina* are the long slender bodies in the cup of the flower, composed of the filaments or thread, which is the supporting standard, and of the *anther*, which is the top of the filament, and contains the dust of them called *pollen*. The *pistil* is the column in the centre of the flower, consisting of three parts: the *germen*, which is the base of the whole, and afterwards becomes the bearer of the seed; the *style*, which is the slender thread proceeding upwards from the germen; and on the top of this is seated the *stigma;* this last receives the pollen and conveys the juice by its pores to the ground.

2. Does the flower always contain the stamina and pistils together?

No; they are sometimes separated in different flowers, and these flowers are sometimes seated on different plants, and at times on the same plant.

What is the fruit?

The fruit consists of the germen which swells and sometimes takes a different shape from its first form. It is sometimes large and juicy, and contains an inner capsule including the seed, as in the apple and pear, and is then called a *pomum*. Sometimes it is dry and husky, and is called a capsule, as in the ochra. When a succulent coating covers a hard pit, as in the plum, peach and nutmeg, it is called a *drupe*. It is called a *berry* when several seeds are imbedded in a juicy fruit, as in the gooseberry, and the berry is compound when several grow together, as the blackberry. When it is a long pod opening in two valves, it is called *legumen*, as the pea and briar, when it shuts and opens in two valves with the seeds attached to a membranaceous receptacle inside the valves, and the seeds attached to the valves, called a *silique*, as in stock July flower, mustard, &c. The fruit of the pine is called a *strobile*.

What is the seed?

The seed is the final product of the plant, and is in fact the egg which serves to renew the species. It consists of three parts. The two principal ones, which, when the seed begins to germinate, show themselves first, are called *cotyledons*, and are the two lobes of the seed. Between these is a small body called the *corde*, consisting of two parts; one sharp pointed, which as the seed grows proceeds upwards and becomes the stem, and the other, which descends into the earth and becomes the root.

Is there another part of the plant connected with the flower and fruit?

Yes—the *receptacle;* which is the base of the flower and fruit. We may observe this in the sunflower: it is the cup which remains after the flower and seed have been taken out.

Having considered the flower itself and fruit, let us next examine the manner in which the flowers are arranged on the stem: What is this called?

It is called the *inflorescence*, and is of several different kinds, all of which have a distinct name, such as the *verticil* or *whorl*, the *fascicle*, the *corymb*, the *spike*, the *panicle*, the *raceme*, the *capitulum*, the *umbel*, the *cyme*, and the *thyrse*.

1. The *verticil* is when the flowers are inserted around the stem in a circle; e. g. the dead nettle.

2. The *fascicle*, or tuft, is an arrangement of the flowers into a close bundle.

3. The *corymb* is when the foot-stalks of the flowers gradually shorten as they approach the summit of the stem, so that the tops of the whole are even, as in the millefoils or yarrow.

4. The *spike* is a close arrangement of the flowers without foot-stalks along the top of the stem, as the plaintain.

5. The *panicle* is like the preceding, but each flower has a foot-stalk.

6. The *raceme* is a cluster of flowers, each of which has its own foot-stalk, but the whole are united in one common foot-stalk, as a bunch of currants.

7. The *capitulum*, or little head, is a globular arrangement of the flowers, as the bachelor's button, or globe amaranth, *gomphrena*.

8. The *umbel* is when, like the sticks of the umbrella, the foot-stalks are of one length and proceed from a common centre, as in the milkweed, asclepias and in the parsnip.

9. The *cyme* is like an umbel, but the foot-stalks are divided variously and alternately, as in the snow ball and elder.

10. The *thyrse* is a panicle of an oval figure, and a good example is the *lilac*.

LADIES' DEPARTMENT.

American Female Patriotism.

Other lands have boasted of the patriotism of their men and women, but Americans have been comparatively silent. There are many individual instances of the heroic ardour of our people during the revolution, which would tell well in history, but are left to linger in the recollection of succeeding generations. The following, from the new work entitled the "Spy Unmasked," exemplifies one among the many striking examples of that love of liberty and undaunted spirit which characterized our countrywomen in the war of independence.

[*Boston Com. Gaz.*

"A good lady, (we knew her when she had grown old,) in 1775, lived on the sea board, about a day's march from Boston, where the British army then was. By some unaccountable accident, a rumour was spread in town and country, in and about there, that the *regulars* were on a full march for that place, and would probably arrive in three hours at the farthest. This was after the battle of Lexington, and all, as might be well supposed, was in sad confusion—some were boiling with rage and full of fight; some hiding their treasures, and others flying for life. In this wild moment, when most people, in some way or other, were frightened from their property, our heroine, who had two sons, one about 19 years of age, the other about 16, was seen by our informant preparing them to discharge their duty. The eldest she was able to equip in fine style; she took her husband's fowling piece, "made for duck or plover," (the good man being absent on a coasting voyage to Virginia,) and with it the powder horn and shot bag; but the lad thinking the duck and goose shot not quite the size to kill regulars, his mother took a chisel, cut up her pewter spoons, hammered them into slugs, and put them into his bag, and he set off in great earnest, but thought he would call one moment and see the parson, who said "Well done, my brave boy—God preserve you"—and on he went in the way of his duty. The youngest was importunate for his equipments, but his mother could find nothing to arm him with but an old rusty sword; the boy seemed rather unwilling to risk himself with this alone, but lingered in the street in a state of hesitation—when his mother thus upbraided him: "You John H*****, what will your father say, if he hears that a child of his is afraid to meet the British? Go along—beg or borrow a gun, or you will find one, child—some coward, I dare say, will be running away; then take his gun and march forward.; and if you come back, and I hear you have not behaved like a man, I shall carry the blush of shame on my face to the grave." She then shut the door, wiped the tear from her eye, and waited the issue: the boy joined the march. Such a woman could not have cowards for her sons. Instances of refined and delicate pride and affection occurred at that period every day, in different places; and in fact, this disposition and feeling was then so common, that it now operates as one great cause of our not having more facts of this kind recorded. What few there are remembered, should not be lost. Nothing great or glorious was ever achieved, which woman did not act in, advise, or consent to."

Horror of Informers.

During the Irish rebellion of 1798, a circumstance occurred, to which of course a different interpretation will be given according to the sentiments of him who hears or reads it, but which, in the day of Sparta's glory, would have immortalized her who was the heroine of it. The only son of a poor widow, Mary Brady, was arrested for some acts to which one party gave the name of *treason*, but which another called the attempt to free a country from the shackles that palsied the energies which gave genius its spring, and passion its vigour.—With those opposite readings we have nothing to do. The young man was condemned by martial law, and was led out to die. His mother followed the military procession that ushered the poor fellow to his doom, and in accents that may be conceived, but cannot be expressed, she besought the officer on whose word his life depended to spare her boy. The soldier was inexorable; her petitions were unnoticed, as if unheard; but when they arrived at the appointed place of execution, the officer suddenly turned and offered life to his silent and shivering captive, on condition of his discovering the members of the association with which he was connected. The mother was kneeling by the side of her child, and her eye with the glare of a maniac was fixed upon his bloodless cheek. They both started at the soldier's offer; and the son appeared to hesitate, but the mother instantly arose from her posture of humiliation, and said, "my child, if you do, my bitterest curse shall be upon you, and the milk that you took from my bosom shall be poison to your veins." He was executed. The childless widow returned to her home, and the evening of that day saw her at rest for ever!—Her heart had broken in the struggle.

PICKLING.

TO PICKLE ONIONS.

Take onions when they are dry enough to lay up for winter, the smaller they are the better they look; put them in a pot, and cover them with spring water, with a handful of white salt, let them boil up, then strain them off, and take three coats off; put them on a cloth, and let two people take hold of it, one at each end, and rub them backward and forward till they are very dry; then put them in bottles, with some blades of mace and cloves, and a nutmeg cut in pieces; have double distilled white wine vinegar, boil it up with a little salt, and put it over the onions; when they are cold, cork them close, and tie a bladder and leather over it.

TO PICKLE RED CABBAGE.

Slice the cabbage fine cross-ways; put it on an earthen dish, and sprinkle a handful of salt over it, cover it with another dish, and let it stand twenty-four hours; put it in a cullender to drain, and lay it in a jar; take white wine vinegar enough to cover it, a little cloves, mace, and alspice, put them in whole, with one pennyworth of cochineal bruised fine; boil it up, and put it over hot or cold, which you like best, and cover it close with a cloth till cold, then tie it over with leather.

SPORTING OLIO.

Pedigrees of Thorough bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

The superior high blooded Race Horse

SUPERIOR,

A fine bay, 16 hands high, 4 years old this spring, &c. He was got by the imported horse Diomed, his dam Lady Bolingbroke, by the imported horse Pantaloon; Cades by King Herod; Primrose by Dove; Stella by Othello; Selima by Godolphin Arabian.

The size, the bone, the blood (which is the most approved) entitles this young horse to rank among the first stallions in America. His dam (Lady Bolingbroke) has produced more good racers than any mare in America: among the number were Belia, Desdemona, Lavinia, Wrangler, &c.

Tree Hill, March, 1811. Miles Seldon.

SIR HAL.

Sir Hal was got by the celebrated imported horse Sir Harry, his dam by the imported horse Saltram, his grandam by the imported horse Medley, his great grandam by Young Aristotle, and he by the imported horse Aristotle.

Performances.

The fall after three years old, he ran a match race with Mr Douglas's Francisco, 2 mile heats, which he won very easily in 3 m. 56 seconds. Spring he was 4 years old, he won a cup at Fairfield, 2 mile heats, beating Mr. Holme's Molineau, Mr. Will's Fitz Diomed, Mr. Trotty's Forty-Seven, and two others without being put up. Fall he was 4 years old, he won the jockey club purse at Warrenton, 3 mile heats, beating Mr. Davie's Little Billy and several others, with great ease. Same fall he went to Broad Rock races, entered for the proprietor's purse 3 mile heats, and nothing would enter against him. Same fall he went to Fairfield and started for the jockey club purse, 4 mile heats against Mr. Wynn's Cup Bearer and 4 others, which race he lost after winning the 1st heat in 7 m. 52 seconds, and losing the second heat a few feet. Fall he was 5 years old, he won the jockey club purse at Warrenton 2 mile heats, without being put up, beating Mr. Drummond's Florizel and others. Same fall he won the jockey club purse at Broad Rock 4 mile heats, beating and breaking down Mr. Winn's Cup Bearer at one heat in 7 m. 40 seconds.

Same fall he won the proprietor's purse at Belfield very easily, beating six horses. Spring he was six, he won the ladies' purse at Fairfield, mile heats, best three in five, beating easily five horses.

Same spring he won the proprietor's purse at New Market, 3 mile heats in 5 m. 52 seconds, beating easily several horses. Fall he was 6, he won the proprietor's purse at Warrenton 2 mile heats beating two horses Same fall he won the jockey club purse at New Market 4 miles heats, running both heats under 8 ms and the 2nd heat in 7 m. 56 seconds, beating Merino Ewe by Jack Andrews, Mr. Jones's grey mare by Florizel, Mr. Forrester's Director by Sir Archie, Mr. Minge's brown mare by Sir Archie and several others.

Same fall he won the jockey club purse at Belfield 3 mile heats, beating easily two horses. Spring he was seven years old; he made a season at Mr. William Winn's in the county of Sussex, where he was put to 50 mares. Fall following he was trained and carried to Maryland where he run two races, one at Marlborough, 4 mile heats, seven starting, which he won easily, running both heats under 8 minutes. The next week he run at Washington city, beating very easily 3 mile heats, Dr. Brown's Rosa, C. S. Ridgeley's Penelope, Mr. Hughe's Diana and Gov. Ridgeley's Tuckahoe; 1st heat 5 m. 49 seconds, 2nd heat 5 m. 43 seconds.

Wm. P. Wyche.

(From late English Papers.)

GRAND SAILING MATCH.

The annual below-bridge sailing match by yachts belonging to the Thames Yacht Club, took place yesterday for a silver cup and cover. The distance to be sailed was from Greenwich to Gravesend, and back to Greenwich.

At Woolwich, a misfortune happened to the Will-o'-the-Wisp, the press of sail she carried being too strong for the gaff, which broke, and she was consequently disabled from proceeding further. The Daisy kept the lead, followed pretty closely by the Lady Louisa, down to Gravesend. The Atalanta and Sylph were the two hindmost vessels. At five minutes past one, the Daisy rounded the flag boat moored off Gravesend, in pretty style, and was loudly cheered by the passengers on board the steamer, which had stationed itself near the lee shore. Between the Sylph and the Lady Louisa a most interesting contest ensued, for being the second round the boat, the Sylph completely got the advantage, though for some minutes they were abreast of each other. Next followed the Success, then the Atalanta, all within five minutes of each other; and the seven boats had got round the boat within fifteen minutes of the Daisy. Pigeons were sent off to London to communicate the state of the different boats. In returning, the grand trial of nautical skill was displayed, but the Daisy kept the lead, followed, however, sharply by the Lady Louisa. At Long Reach the Daisy and Lady Louisa were close to each other, but as the former reached Greenwich, she distanced her immediate competitor, and at seven minutes to six o'clock passed the signal-boat, winning the prize by about a quarter of a mile. The boat was loudly cheered. The Lady Louisa came up in four minutes; the Success was the third boat, and the Sylph the fourth. The distance sailed is nearly 60 miles, and was done in seven hours.

Dancing was commenced on board on the return of the steamer. The match was as fairly a contested one as has occurred for years past as regards the Daisy and Lady Louisa. Every point in sailing was taken advantage of by each, but the Daisy had a greater press of sail, which was well filled by a strong breeze the whole distance. The Will-o'-the-Wisp, but for the accident above referred to, would have had a fine chance, being second when the gaff broke.

The cup will be presented to the winner, at the club-house, Oliver's coffee-house, next club day.

Cootes, the pedestrian, accomplished on Thursday evening, the arduous task of walking 1250 miles in 1000 successive hours. This beats the Barclay match by 250 miles.

Education of Cats.—A work has been published in Paris, entitled "A complete Treatise on the Physical and Moral Education of Cats!"

Sixteen guineas for a barouche and four, besides two guineas to the drivers, was, we hear, no unusual price for a day's excursion to the late Epsom meeting.

MISCELLANEOUS.

REFLECTIONS ON RUSSIA AND TURKEY.

Philadelphia, August 9th, 1828.

J. S. Skinner, Esq.

Sir,—When your No. 21, vol. 10, came to hand, I was reading Everett's America, in which the author with great tact and candor, and evidently against his own partialities, has shown conclusively, that the great political influence of Great Britain and France in the affairs of Europe, is impaired if not destroyed, and that Russia has become not the arbiter but the dictator of the eastern continent. The artificial, it would be pardonable to say the trifling politics of the other cabinets of Europe, leave an overwhelming government like that of Russia, the easy task of burying the ministers of Austria, France and Great Britain, under a load of their own diplomatic documents, and then consigning their names to the detestation of posterity by epitaphs drawn from their own writings or speeches. "*We must make war to the south, or have war from the north,*" said Villele, in justification of the French invasion of Spain. Could the utmost strength of ingenuity and malice, more effectually blast the posthumous fame of this instrument of foreign despotism, than will the recorded words from his own lips? and when they were spoken it is probable, the wretched man, considered them as little short of oracular.

As the present contest in Europe is founded on an order of things, far from new, though so generally considered, and as your paper is amongst the few now open to discussions not connected with local politics, I have to request a place for the following reflections on Russia and Turkey.

Those two immense empires sweep over the whole space on the earth's surface, from the arid sands of Arabia, to the frozen shores of northern Europe and Asia. The Russian empire with the Arctic ocean in its rear, the interminable regions of northern Asia, on its left, and distracted Gothic Europe on its right, presents a solid Sclavonic centre and southern point, which may be opposed, but never can be ultimately resisted by the mingled Mahometan nations of Asia, Africa, and Europe. I have used the term Gothic Europe in the foregoing sentence, with no sinister meaning, but merely as a discriminating term, to set apart the smaller and unhappily conflicting, Gothic or Germanic nations of western and north-western Europe, from the great Sclavonic mass of eastern Europe, united under the double headed eagle of Russia. This Sclavonic body, exceeding an aggregate of 50 millions, speaking one language, professing one religion, and compactly associated in one empire, forms a political fabric in extent and solidity of structure which has never before been equalled. Similar to its history, the real government of Russia has been mistaken. In name it is a despotism, but in reality an aristocracy, with a head speaking the language, and obeying the will of the positive but silent power. The emperor is an Autocrat in appearance, but the president of an ever living council, which has the maps of Turkey and Persia, and the roads to Byzantium, Teheran and Shirauz, constantly open in its hall of deliberation. The emperor, with his family and dependents has St. Petersburg as their centre of motion, the true power of the empire revolves round Moscow, and carries the palace on the Neva with it as a satellite.

Let any reader, turn his eye to a map of Russia, Persia and Turkey, and he will easily trace the roads from Moscow to Byzantium on one, and that to Schirauz on the other extremity of the Euxine. I am myself able to distinctly remember when the Kouma and Kooban rivers in Asia were the limits of Russian power between the Euxine and Caspian seas, and when in Europe the legions of Catharine II. were stayed by the Bog. Forty years has carried those untiring legions to Tauris, and added in Asia to the empire eight degrees of latitude, and 200,000 square miles; the same legions are now on the Danube, and Bender, Moldavia, and Valachia, with 50,000 square miles are Russian. Within the same period the Russian empire has spread westward in Poland, over Volhynia, Minsk, Wilna, Witebsk, and Courland; obtained an extension of 60,000 square miles, six millions of subjects and reached the very heart of Europe. Thus in less than half a century, has this terrible power been augmented by conquest 210,000 square miles, and at least 10,000,000 of inhabitants; and what may well excite indignation if not astonishment, this increase of a power previously extremely formidable, excited scarce a movement or visible apprehension amongst the wretched court politicians of Europe. These politicians might well be thrown into one list, having at its head, Kaunitz, Pitt, Castlereagh, Canning, Villele, and Metternich, with the *legitimate* monarchs of Europe, Frederick II. of Prussia, excepted as their executive instruments.

In the latter part of the 17th century when Peter I. succeeded his brother Iwan, Russia contained scarce 15 millions of inhabitants, and not one seaport except Archangel on the White sea. Invigorated by the genius of this truly great man, the white eagle turned one head to Europe; and the other to Asia. Seaports were reached by the sword, fleets arose as if by supernatural power, and the unwieldly Strelitzes were turned into those invincible regiments, before which Persia and Turkey have recoiled, and which in 1758 reached Berlin, and in 1815 Paris, and which now menace Constantinople.

What power is now in existence to stay the march of armies which for a century have not met a severe and real check; armies to whom occasional defeat is stimulus; to armies which have to remember the fields of Pultova, Chotzim, Gros Jagersdorf, Zullichau, and Cunersdorf, and the destruction of her most numerous batallions with the humiliation of France? It may at once be answered, and reputation boldly challenged to the assertion, that the United States of America alone stands to stay the progress of Russia to universal empire. It is however, in America only where the United States can, from physical position, exert a commanding moral or political influence. "Russia, Great Britain, and the United States, are therefore [for reasons given] now the three prominent and first rate powers of the civilized and christian world," says Mr. Everett. As to Great Britain, let the cause of the evil be what it may, her power is paralysed. This misgoverned nation sent her fleets into the Marmora sea when opposition to France was the object; to arrest the arms of Russia, not a sail is unfurled, but Stratford Canning is sent to quibble at Corfu. Admiral Codrington, now wearing a sword most gratefully sent him by the emperor Nicholas, for the truly Russian victory at Navarin, stands worthy of a place along side of the hero of Waterloo. One wore a field marshal's uniform, a present from Alexander, for fighting Russian battles in the Netherlands, and the other now carries a trophy, a decorated blade of iron, as a reward for similar services on the coast of the Morea.

Villele the late French minister is now under an impeachment for subservience to Russia, and in the mean time, whilst debates and tumults mark French legislation, French fleets remain in port, French armies in France, and leave Nicholas and Nesselrode to follow the path pointed out by Peter the Great and Catharine II. By the way it is not very generally known, that in naming her two eldest grandsons, Alexander and Constantine, Catharine avowed a view to place the latter where his name imports, and where he may still rule as an emperor or Cæsar.

In fact the existing war between Russia and Turkey is only one of the acts of a drama, which has been long opened, and the closing scene of which is yet concealed by time. During 132 years which have elapsed since the accession of Peter the Great, the power of Russia has been constantly on the increase; the manners of the people softening; science and the liberal arts improving, and above all, commerce has in part supplied the place of civil liberty, a free press, and deliberative assemblies, in inspiring a restless spirit of enterprize. It has ever been found that where ambition and cupidity unite, nothing carries human beings so far or enables them to accomplish so much. Instigated by such incentives, the Romans, an Italian tribe formed an empire over much of Europe and Asia; in modern times, thus influenced, the Turks, themselves, persevered and subjugated nations with greatly superior numerical force, trifling colonies of Europeans, have established and maintained kingdoms and empires in America, Africa and Asia. It is really these combined motives to action which is now pressing the Russians on the Mahometan nations; and it has arisen from an artificial, deceptive, and of course inefficient political system, that the more civilized christian states of western Europe, have in derision of every maxim of common sense, acted as the willing allies of a power now beyond control.

It would be a curious but by no means an improbable event, to see Turkey the nucleus of an alliance, formed by one part of christian Europe against another; an alliance which when formed, would give to Russia precisely what it most desires, the sanction of religion, and cast the odium of an unnatural combination on its enemies. Such an alliance may be formed, and produce a momentary effect; but it cannot give to Turkey agriculture, manufactures, and security of property and consequent population. No alliance can form a harmonious body from the hostile materials under Turkish power. No alliance can lose the outlet of the Euxine, or turn the attention of the Russian nation from the Mediterranean. No alliance can restore to paralysed Europe that vigour which the disastrous termination of the French resolution broke for ever. Nor can any practicable alliance, allowing the almost hopeless consideration of honest intention to form its base, equal in actual force the positive strength of Russia alone, and it would be fatuity to expect, in the present state of the world, that Russia would be left to contend, single handed, against any possible coalition.

It demands no better examples than the common comments on the Russian and Turkish contest to become convinced of the hopeless situation of the latter. We are amused with an account of the double line of fortresses along the Danube, and have arranged in terrible array, Widin, Calafat, Zibro, Bistritz, Oreava, Czeban, Nicopoli, Turnul, Sistow, Ruszczuk, Giurgevo, Tortukai, Silistria, Razawat, Czernawoda, Hirsova and Brailaw; and if this formidable line is pierced, we are next shown, the rugged chain of the Balkan, with the strong posts of Sophia, Philippopoli, Tartar Bazargik, Eski Zara, Demir Kapi, Chumla, and Varna. Two such lines as the Danube and the Balkan, it is true, no where else exist, and would be impenetrable if Russia and Turkey were, what Russia and Turkey were in 1550; but time and rapid improvement on one side, with fanaticism, and stupid disregard of moral revolution on the other, has rendered the Euxine, the Danube or the Balkan feeble barriers against impending ruin. WILLIAM DARBY.

The Lungs.

Experiments, which have been recently made, to show the connection and mutual influence of respiration and circulation, prove that the blood which is impelled by the right ventricle of the heart, and carried to the lungs by the pulmonary artery, cannot cross the lungs for the purpose of returning by the pulmonary veins, except when the air-cells are exhausted by expiration. During inspiration, when the cells are distended, the passage of the blood is momentarily interrupted. This prolongs the contact of the air with the blood, and renders the absorption of oxygen by the latter more complete.

[*London pa.*

Sale of Paintings.

Mr. Stanley sold at his rooms, in Bond street, on Friday and Saturday last, a collection of Dutch pictures, formed by Mr. Smith, a well known picture dealer. The collection displayed the taste and judgment of the collector, as there was hardly a single bad picture among them while many were of high character. *Jephtha and his Daughter*, by Rembrandt, is a very fine specimen of that master.— There were three pictures by Jan Steen, of a very peculiar character, and which attracted great attention. The following is a list of some of the prices:—*A Landscape*, by F. Moucheron, 336*l.* purchased by Mr. Home; *A view in the Roads at the Hague*, by Hackaert, 241*l.*, the Marquis of Stafford; *Jephtha and his Daughter*, by Rembrandt, 420*l.* bought in by Mr. Smith; *A Seaport*, by P. Wouvermans, 376*l.*; *An Assemblage of Flowers*, by Huysum, 283*l*, 10*s.*; *Interior of a Chamber*, by Peter de Hooye, 399*l.* The proceeds of the sale were 8,550*l.*—[*Ib.*

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 22, 1828.

☞By a communication in the New York Horticultural Repository, from Mr. Elam Tilden, of New Lebanon, N. Y., it appears that the flower of *senecio obovatus*, or *squaw weed*, contains a very deadly poison to *sheep*.

☞A HINT FOR OUR WATER COMPANY.—"Among one of the advantages of a residence in Paris, is that of having very pure water, which is supplied at the price of a sous per pailful, by a public company. This water is filtered through a bed of charcoal, as it flows from the river, and is without further difficulty sold to the publick, freed from every impurity."

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c.; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want.

☞Blacksmith and other repairs done in the best manner, and at the usual prices. Also, Turnip Seed and a few boxes of Shakers' Garden Seeds, for sale.— Orders received for Fruit Trees.

JONATHAN S. EASTMAN,
No. 36, Pratt-st. Baltimore.

FOR SALE,

Half-blooded Southdown RAM LAMBS, the progeny of a ram imported by Colonel Powel, of Philadelphia, and took the premium as the best ram exhibited at the Doncaster cattle show, in England. Price $5, deliverable near Owings' Mills, on the Reister's-town turnpike road. JOHN PATTERSON.

NEWSPAPER AGENCY.

BENJAMIN E. FREYMUTH, of the city of Philadelphia, respectfully informs his friends and others, who may honour him with their confidence, that he proposes to establish himself in the city of Philadelphia, as NEWSPAPER AGENT, for the collection of such bills as may be due for newspapers and other periodicals, printed in different parts of the Union, which may have circulation in the city and vicinity of Philadelphia.

He trusts that his long experience as collector for a respectable daily journal in this city, and his thorough acquaintance with his native city, will insure to him not only a continuance of the favours of his present friends, but also those of others.

For further particulars, Mr. Freymuth begs leave to refer those who may favour him with their collections, to the following named gentlemen: Mr. John Norvell, late Editor of the "Aurora and Franklin Gazette;" Messrs. George Taylor & Co., of the "Aurora and Pennsylvania Gazette." Other respectable references can be given, should it be required.

Communications relative to the above business (post paid) and addressed to Benjamin E. Freymuth, No. 6, Southampton Court, or to either of the above named gentlemen, will meet with prompt attention.

Philadelphia, July 9, 1828.

[Having known Mr. Freymuth for several years, and had the benefit of his services as agent for the American Farmer during that time, we can confidently recommend him for promptitude and punctuality.—ED. A. F.]

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,
No. 4, Bowly's wharf.

TOBACCO.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50 —red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 98 hhds. Maryland, and 28 hhds. Ohio.

FLOUR—white wheat family, $6.00 *a* 7.00—superfine Howard-street, 5.12½ *a* 5.25; city mills, 5.00; Susquehanna, 4.75—CORN MEAL, per bbl. 2.50—GRAIN, best red wheat, .95 *a* 1.00—best white wheat, 1.10 *a* 1.25— ordinary to good, .85 *a* .95--CORN, .32 *a* .34—RYE, .40 —OATS, bush. .20 *a* .22—BEANS, 1.25—PEAS, .60 *a* .75— CLOVER SEED, 4.25—TIMOTHY, 1.50 *a* 2.25—ORCHARD GRASS SEED, 2.25 *a* 3—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12— Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds. 1st proof, 20½ *a* .21—bbls .22½—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—BACON, hams, Balt. cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50— ground, 1.25 bbl.

There has been little demand for corn this week— sales at 32 to 34 cts. for white, 35 to 37 cts. for yellow. Wheat goes off briskly at the above quotations.

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Sheep and Wool, Extracts from Luccock's Essay on Wool, On the Causes which act immediately on the Fleece, continued—On the Spontaneous Production of Vegetables—On the Artificial Grasses adapted to the Southern States—To Save Orchard Grass Seed—Prolific Wheat—Prospect of Crops in Albemarle county, Virginia—A Short Treatise on Botany—American Female Patriotism—Horror of Informers—To Pickle Onions; To Pickle Red Cabbage—Pedigree and Performances of Thorough bred Horses, Superior and Sir Hal—Great Sailing-match near London—Items from London Papers —Reflections on Russia and Turkey—The Lungs—Sale of Paintings in London—Editorial—Advertisements— Prices Current.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market-sts., where printing of every description is neatly executed.

AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

(Concluded from p. 179.)

If it be possible also to procure a race of sheep distinguished for the fineness of its pile, and capable of retaining its coat through two summers, a ready way is pointed out of obtaining long wool of a far superior quality to any that has hitherto been produced; such, perhaps, as would enable our worsted manufacturers to rival the envied beauty of the Indian shawl, and to imitate the most delicate textures of cotton and of silk. The mere possibility of producing such a kind of wool, should rouse the attention of the gentlemen in Norwich. They are best able to describe the purposes to which it would be applicable; the immense value of such a manufacture, in a country situated as ours is, and to point out the intrinsic value of a fleece which must far exceed that of all common productions. Yet in speaking of a material so uncommon and so valuable, it is not necessary to hint at the possibility of procuring it; already the blood of the Merino race, with its soft attenuated pile but little debased, has so far affected some individual fleeces, both in Britain and in Saxony, as to fit them for the fabrication of worsted goods, possessing a delicacy of texture suitable to the most sanguine expectation.

But if the character or condition of the flock be such as renders it probable that the fleece will loosen from the skin during the prevalence of hot weather, then nature herself points out the proper time for shearing it. Yet, when sheep produce wool sufficiently short to meet the wishes of the manufacturer, the operation should be deferred, at least if no particular advantage to the animal is to be obtained by clipping it sooner, until the new coat appear like a fine downy substance, mingled with the bottom of the staple; for this being shorn with the old fleece, renders the pile more suitable to the manufacture of woollen cloths. It is naturally soft, fine and unelastic; contributes to the delicacy, solidity and strength of the thread into which it is twisted, and can be brought to display upon the surface of the cloth the superiority of its qualities. In the blunt language of the clothier, who often expresses his ideas in very appropriate, though not always in the most elegant terms, wool of this description is distinguished by the epithets foody and flowery: words immediately conveying to an English ear, a conviction of the high estimation in which such fleeces are held.

In large wool, that which is applied to the manufacture of worsted goods, a portion of the incipient coat is of no value, because it would be completely separated from the longer part of the pile by the first process through which it passes. This division of the longer from the shorter hair is one of the chief purposes, to which the comb is adapted. In all those articles also, though produced from long wool, which are wrought with the carding machine after the manner of woollen cloth, where the principal object is to procure a long and well formed nap, this short and downy substance cannot be of essential service. Large wool, therefore, should be shorn so soon as the staple is sufficiently long to answer those purposes for which the manufacturer intends it. Should the grower find it difficult to determine this point from his own judgment, his stapler, if he be a man of observation and liberality of sentiment, will most readily inform him.

Some very humane people have railed loudly at the barbarous custom of pulling the fleece from the back of the sheep, instead of separating it by the use of shears. Indulging the imagination too freely, they have given vent to the sympathetic sentiments of their hearts, in language admirably adapted to rouse every indignant passion against the cruel tormentors of a creature so meek and helpless. They describe its agonies under the operation, in terms which make the spirit bleed, and render it almost ambitious of emulating apostolic fame, by travelling among these rude barbarians, to teach them the first principles of humanity. Yet, while we venerate the feelings from which such descriptions proceed, we can scarcely avoid smiling at the caricature which they exhibit, recollecting that the practice is adopted only where the sheep detach their fleece every returning summer, and that the operation is performed at a season, when it is so loosely affixed to the animal, as to be separated almost with a touch; that a great part of it has already been left among the thickets where the sheep has browsed, or upon the rude hillocks where it reclined; and that the office of these violent hands is sometimes rendered unnecessary by the pressure of the sheep against each other, when the flock is driven into a narrow compass. The shears, however, are useful instruments; by their assistance a careful workman both separates the wool without giving the smallest pain, and collects that portion of the fleece, which without them would have been scattered among the shrubs, or lost upon the wastes. The late Empress of Russia introduced twenty foreigners into her dominions, to teach her subjects how to perform this humane and simple operation.

Such are some of the principal objects in the management of the fleece, to which every shepherd's attention should be directed, who is ambitious of sending his wool to market in the most desirable condition. He should particularly remark its uniformity of pile, its purity, and perfection of growth. There are other circumstances connected with the management of sheep, to which the production of fine wool has often been attributed, and for that reason they demand our notice.

It was formerly considered as absolutely necessary that the sheep, from whose sides the most valuable wool was expected, should quit the pastures, which had nourished them during the winter season, and travel to others situated in a more northern or elevated region. It was remarked that the flocks of Spain, which spend the shortest days upon the sunny plains of Estramadura, Seville and Cordova, the longer upon the mountains of Castile and Leon, and the intermediate ones in passing from one station to the other, produced a much finer pile than those which had not been subjected to the fatigue of two long journies in the course of that period, which is commonly deemed necessary to the perfection of their fleece. Without adverting to other causes, the difference was sometimes attributed entirely to the motion necessarily arising from one system of management, and the stationary state resulting from the other; and it was deemed impossible to produce in countries which have no such extensive wastes and variety of climate as Spain possesses, and where the institutions of society prevented such an exchange of pasture as is allowed to her flocks, a covering equally excellent. But when this breed of sheep was conveyed to France, it was soon discovered that this system of management was not necessary, either to the health of the flock, or the perfection of its wool. In Saxony and England the experiment has been repeated with equal success, and in Sweden the Spanish race, instead of travelling to distant mountains for the purposes of fatigue or a change of climate, remain within doors through more than half the year, and still preserve the goodness of their coats. Indeed, the notion that travelling and fatigue are necessary to the production of fine wool, is almost exploded; it would be highly improper to impose them upon the heavier kind of sheep, for by injuring the health of the animal, or reducing its flesh, they would certainly contribute to the deterioration of the fleece. The lighter and more restless animals take a great deal of exercise, ramble far over the Downs, and very commonly produce a fleece of superior quality, but the fineness of the pile is the result of blood, it has no more connection with fatigue than with the length or form of the tail, or the existence of the horns; both these and the fleece may be changed at pleasure.

In countries where the finer wools are produced, some have observed that the shepherds enclose their sheep every night in buildings reared for this purpose, and to this circumstance attribute the superiority of the fleece. Doubtless, every attention which contributes to the health and comfort of the animal, tends to improve its pile. But cotes were not erected with this particular view; they were first adopted when the beasts of prey, prowling near the pasture and the building, disturbed and endangered the flock, and are now resorted to chiefly in countries where these animals remain, or have been but lately extirpated: in some others, they are made use of from mere habit. The practice of cotting sheep having been adopted by their forefathers, a few of the present race of shepherds, for that reason, continue it; while others, who have observed its effects with more attention, have both praised and censured the custom. But to crowd a large number of sheep together in a low, damp and close building, although the fleece may possibly derive some advantage from the superior quantity of yolk which is furnished, must frequently be attended with the most pernicious consequences. Sometimes, in the course of a single night, hundreds of the flock have been lost by suffocation; and it must be always dangerous to turn out the sheep from these steaming prisons, poisonous as the dungeon of Calcutta, exposed to the chilliness of the morning air. That animal must derive his blood from the most hardy of progenitors, which can endure treatment like this without suffering a contraction of its pores, and a consequent injury to the wool. The French, observing that cotting of sheep has done harm when injudiciously managed, recommend that the cotes be large and airy, and that the flocks be kept within them until the dew is evaporated from the ground: or, in plainer language, they desire us not to expose the flock to the extremes of heat and of cold, or to sudden transitions from one to the other. If managed with due care, cotting may doubtless be made subservient to the goodness of the fleece by preserving the health of the sheep, promoting the regular production of the yolk, and preventing the destruction of it by the heat of the sun and the dripping showers of heaven. But in all cases where it injures the sheep, it must be detrimental to the fleece.

The use of artificial grasses in the new mode of farming, which has been so generally adopted in most parts of the kingdom, was often assigned as one principal cause of the degeneracy, which has been observed in wool, in those instances where a district has changed the peculiarities of its fleeces. The pernicious effects of clover, colesced and turnips, were a few years ago the common themes of those manufacturers and staplers, who found that the fleeces which they had been accustomed to purchase and to use, had been almost banished from the districts where their connections were formed. Without considering that the cultivation of these plants enabled the farm to carry a heavier kind of stock, and that the shepherd in consequence of this was induced to alter the constitution of his sheep, they attributed to the mere succulency of the grass that which was really the effect of blood. They could not but observe the alteration which the fleece had undergone; they could not but lament it, because the pile was sometimes rendered unsuitable to the purpose for which they wanted it; although in some cases, considered merely as the production of a farm whence the grower must derive a profit, or as a fleece adapted to some other branch of the manufacture, it had been greatly improved. If a district into which the new husbandry was introduced had formerly produced long wool, suited to the worsted manufactures, it became stronger and better adapted to the violence of the comb; and if the finer fleeces had usually been afforded there, the pile was more mellow, soft and valuable. The alteration was most severely felt by those who had purchased the smaller and finer kinds of combing wool, adapted to the hose trade, and those small fleeces produced upon the commons which abounded even in the richest districts, and were used in the fabrication of woollen cloths. It is desirable that in all improvements in the system of agriculture, especially those calculated to enrich the soil and furnish a larger quantity of food for sheep with less labour and fatigue to them, that the wool-grower should take pains to improve the pile of his old flock rather than introduce a new one upon his farm. The former is already required by some established manufacture, and will become better adapted to it; but the other may be very unsuitable to the demands of trade and the wants of the neighbouring staplers; and if every alteration of the stock tended to make the wool coarser or longer, the general produce of the kingdom must degenerate.

It is most certainly desirable that every farm should be stocked with the kind of sheep most suitable to the quality of the land; but flocks have often been noticed, which seem to betray some want of attention on the part of the wool-grower to this material circumstance. Sometimes he has been observed attempting to produce a weighty fleece upon soils naturally poor and thin, and which afford a supply of food so scanty as to require a degree of labour to procure it, not reasonably to be expected from heavy tempered and overburdened animals.—The most remarkable instance of incongruity betwixt the fleece and the soil which I ever observed, was near to the road which passes from Downham in Norfolk to Brandon. The pasture was one of the thinnest kind, and the flock evidently a mongrel breed, in which the blood of the Norfolk race was mingled with that of the heavy polled sheep frequently found in some of the neighbouring marshes. Perhaps the farmer might possess a quantity of richer land to which this breed of sheep was well adapted, and that it was merely an accidental circumstance which occasioned them to be observed upon a soil so thin and unproductive; it behoves us therefore to suspend our censures, and to give the shepherd credit for a more considerable degree of judgment than he appeared to possess. We can seldom observe the converse of this case, because small fleeces, when grown upon rich soils, are generally improved by them, and we suppose that the shepherd will always stock his land in the full proportion that it will carry Plenty, health and ease, we repeat, are always favourable to the fleece; but hunger, illness and excessive fatigue are calculated to destroy it. Surely, from all the varieties of sheep which exist in the island, a breed might be procured adapted to the circumstances of every farm. The grazier who possesses one suited to his own land, should prize it very highly, and be careful lest he increase the weight of his fleece more rapidly than he improve the quality of the pasture.

Frequently we find wool which has been evidently produced without a sufficient supply of those nutritious juices, which render the pile close, pliable and soft; and the mixture sometimes used as a remedy for this defect, and which on some accounts is a very excellent substitute, produces effects upon the staple which render it less fit for the process of manufacture. The oil which the mixture contains is most certainly useful; but the tar, a dirty and tenacious substance, adheres to the wool so closely as frequently to corrode the hair, rendering the part to which it was immediately applied thin, rough and weak. When affected by the filthy custom of smearing, the pile is less capable of acquiring the softer and more delicate tints, which it is so often desirable to communicate to the different articles of the woollen manufacture. A portion of that dirt, which it obstinately retains through every previous process, is dissolved amongst the ingredients of the dyeing vat, and disqualifies them for communicating that vivid lustre which they would have afforded to a purer wool, even though the artist supply his pans with a much larger proportion of the colouring materials. In the subsequent processes of the manufacture, this filthy staple produces much greater inconvenience, and is subject to more considerable waste than the purer pile, even though we make every reasonable allowance for the weight of dirt which it obviously contains; in the jenny and the loom, the machines employed in spinning and weaving it, more dexterity and patience are required of the work-people, and the cloth which it produces is inferior in its quality, and smaller in quantity, than might have been obtained from the same pile in a pure state. These objections to tar, when it is applied to wool as a substitute for the yolk of the sheep, are collected chiefly from the clothier's account of it, and appear abundantly sufficient to prompt him to require a less pernicious mixture.—The only circumstance which can be mentioned as a counterbalance to these objections, is the consistency which it gives to oil or other greasy substances with which it is mingled, whereby they are retained among the pile, although exposed to the heat of the animal and the detersive influence of the rain. But if it be desirable, in all substitutes of this kind, to imitate as nearly as possible the combinations of nature, we should apply to the growing pile a thick coating of soap in all cases where the sheep is incapable, from the peculiarity of its constitution, of yielding a sufficient quantity of *yolk* to secure a valuable fleece. To this the shepherd will most reasonably object the heavy expense to which such an application of a highly taxed article, if not entitled to the legal drawback, would subject him, and the great readiness with which it would separate from the fleece when moistened by the showers or the dew. It might be asked, are there no means of furnishing the fleece with the power of retaining the soap, notwithstanding the moisture to which it is exposed? But having pointed out the pernicious effects of tar, the wool-grower who is much better acquainted with the peculiarities of sheep, will find a remedy. It might perhaps be attended with some advantages, if the graziers in the southern parts of the island, especially those whose flocks do not readily yield a copious supply of healthy yolk, or are exposed to the influence of a chalky soil, would imitate their brethren in the north, and furnish the sheep with an artificial pabulum of wool.

Some who have had the best opportunities of observing the nature of sheep and the growth of wool, have doubted if the age of the animal affects the fleece; and those who have but few of observing growing pile, are very liable to be mistaken, when they attribute effects noticed in the fleece to causes which are supposed to have existed in the animal. Yet there are few persons conversant with long wool who do not consider the age of sheep, and especially that of ewes, as one circumstance tending to reduce the value of the staple. The hog wool, or the first fleece produced by a lamb more than a year old, was greatly esteemed under the old modes of manufacture; and had not the machinery recently adopted rendered it desirable to obtain staples of a uniform length, which is not so easily effected in this class of fleeces as in those obtained from wether sheep, it would still maintain its pre-eminence, as it does in all places where the yarn is spun by the hand. It works better than that of older sheep, being more plastic, soft and fine. If the opinion of staplers be correct, the sheep in extreme old age appears to lose the faculty of producing a valuable wool; for there certainly is a kind of fleece, supposed to be yielded by old ewes, which possesses but few good qualities. In such coats the hair is hard and glittering, was evidently produced in scanty yolk, the staples separate easily from each other, and the wool dies in the bowl.—This technical phrase is but ill expressed in common language, if we say that the staples easily sink in a mixture of hot water and dissolved soap, and that they contract a shaggy and shrivelled appearance. Such wool, notwithstanding the utmost care, will exhibit symptoms of bad workmanship, even in the first stage of the manufacture, and the labour necessary to fit it for the spinning wheel costs fifty per cent. more than is paid for wool of better quality. The improvement of long wool, therefore, should commence with the banishment of all such fleeces from the flocks. If their bad qualities be really concomitants of age, the remedy is discovered and at hand. Even in the shorter kind of fleeces the effects of age are sometimes observable, but they are not attended with the same degree of inconvenience in the manufacture of woollens as in that of worsteds; they are seen without regret, and sometimes even pass through the hands of the stapler without being noticed.

While speaking of cultivated wool, it would be proper to mention the diseases to which it is liable, were they not in general closely connected with the unhealthy state of the animal. A sickly sheep always yields an inferior fleece, and the shepherd who is fortunate enough to restore it to a healthy condition, produces a correspondent effect upon the pile. The scab, though very pernicious to the staple of long wool, can scarcely be considered as a disorder of the fleece so much as an inconvenience; and the winter stain, a greenish hue which the wool sometimes assumes, is most commonly communicated to the fleece of a sheep very low in flesh, pinched by hunger, and chilled by the bitter winds of winter. The tendency of the coat to felt upon the back of the sheep, is a very curious property of wool, and deserves more minute attention than it has yet received. It appears in some cases to be the effect of blood, is almost entirely confined to the larger sort of fleeces, and seldom affects them until the pile be about half grown. With the cause of cotting in the pile I am utterly unacquainted, and should be happy to receive information.

The circumstances which have contributed to the culture of wool, arrange themselves in two distinct classes, and we have mentioned the most important of both; those whose influence is directed immediately to the fleece, and those which are calculated to rouse the attention of its proprietor.—From the first, when not connected with the latter, we can expect only partial and unimportant alterations; but when the shepherd, desirous to ascertain how far he can improve both his sheep and their fleeces, seizes upon the indescribable powers of generative nature, always acting by constant laws, and converts even these to his purpose, it is impossible to assign the limits that shall restrict his progress. The British shepherd has every encouragement to tread with confidence the field opening before him, for there never was a period from the day of Cæsar (who introduced the manufacture,) until now, when so many enlivening circumstances conspired to prompt and to direct him. The application of machinery in its most perfect form to the woollen manufacture; the increase of wealth both in this country and abroad; the general adoption of fine cloth as an article of dress; of the coarser fabrics for numberless purposes almost new; the amazing extension of the foreign trade; the increasing spirit of speculation among the British merchants; the growing skill of the manufacturer; the diffusion of natural science and experimental taste through the ranks of our superior graziers, combine to promote his success, and assure us that improvement must shortly be made in the fleeces of our country, which will surprise by their magnitude and gratify by the rapidity of their succession.—Britain, although not the first in attempting to improve a native stock of sheep by the selection of foreign breeds, now pushes the intermixture of blood with a spirit, which promises to distance even those, who started long before her in the competition for perfection. The exertions of foreigners, instead of allaying her ardour, should stimulate to redoubled industry; should provoke the old English pride, and render her shepherds as ambitious of distinction for the beauty of the fleece, as the manufacturer is for the superiority of workmanship.

ON THE CONSTRUCTION OF SHEEP SHELTERS.

Almost every suggestion, connected with agriculture, although apparently of no great moment, leads to some important result, either by exciting inquiry, or, as affording some degree of information. You have numerous correspondents of experience and ability, nor has your publication of the Farmer failed of having done much in aid of agriculture, which is rapidly assuming that rank and station which the God of nature intended the most innocent and useful occupation should assume. At this period one of our conceited dandies does not bear in the scale of society, the relative proportion by the side of a plain long waist-coated farmer, which he used to do, even within my remembrance, by one hundred per cent. Without further digression, if some of your correspondents who have the advantage of long experience, would amuse themselves by affording to the public the advantage of their observations and experience upon the subject of my short note, I have no doubt it would be acceptable to many of your readers.

I am but a young farmer practically, and just commencing to build stables for my sheep, nor do I know that I have chosen the best plan. My intention is to erect them about twelve or fifteen feet in width, leaving them tolerably open at the sides, and which will afford every facility for air to pass freely through. The height I have fixed is fourteen feet from the ground, which will afford room above for food, affording for it protection with very trifling expense, and save trouble and waste in bringing it from a stack. The floor I intend shall be of clean sand, which, kept in a moist state becomes compact, rounded in centre and raised five or six inches above the surrounding surface, so that no water shall pass into my stable or sheds; or a small ditch may be made around the whole to carry of such as falls from the eaves. My intention is, not to afford to my sheep any litter whatever, but at certain periods, say once or twice a week, have the manure which is dropped removed, and the sand scrapped off clean, which will afford my sheep a cool, clean and not an uncomfortable bed. It would not be attended with very great labour to have a spare heap of sand, and when the floor was cleaned off, let a wheelbarrow load be taken in and spread, as our grandmothers used to sand their floors. Where manure was wanted (and I am one of those who believe there is no place upon this earth, even the rich bottoms of the Ohio and Mississippi, where it is not) the sand thus occasionally scraped off incompounded as it would be, if preserved would be of the highest value as manure. Nothing could exceed it for our onion patches in our gardens.

I would buid of frame, and fix the sills a proper height for troughs from which to feed. My foundations of brick pillars placed at eight or ten feet distance, so as to admit a free passage for the air under the whole building, between the pillars. The length of such a building may be proportioned to the number of ewes to be sheltered, (I do not think wethers, in our climates require it.) Suppose the building twelve feet in width, I would have in the centre a small room, which need not be more than eight feet by twelve, from which to feed, and let the apartments for the sheep extend from each side of it. Or you might let them extend at right angles from each square, of your feeding room in the centre, in the form of a +.

Such, sir, is my intended plan of a stable for my sheep, and should you deem it worthy of your notice sufficient to give it publicity, and it meet the observation of some one more experienced, as I have no doubt you have many such among your readers, I feel confident they will receive the thanks of many, who are like myself, yet in their noviciate, if they will take the trouble of pointing out the imperfections, and suggesting improvements of the plan.*

I am among the number who take no small pleasure in witnessing the rapid strides which agriculture is making, to assume her station upon the right of the column of moral force. While every department should meet the good wishes of all, it appears to me that wool constitutes an essential item in the sum of a nation's prosperity. I read with no small feeling an account of the celebration of the anniversary of our *Independence* at your place. But, sir, how would it have comported with the feelings of so numerous an assemblage of patriot citizens, that one more should have been added to the cars, and upon its stage have presented a company of native Americans, engaged in the manufacture of Spanish, Saxony or even South American wool? Would it not have looked like having commenced at the wrong end of the heap to husk our corn? The same may be said of hemp, and flax, and iron. Although a warm friend of the tariff, yet without it, when any of these articles, say, iron, hemp or wool, charged with the interest of the money upon the capital while *in transitu*, commission and profit of the exporting merchant, export duty, freight, insurance with a double profit to the importer, can be imported from Europe, and in our markets undersell the productions of our own soil, it shows that there is some deficiency among us. Although I hope in God, never to be driven even to anticipate the period, when the freemen of America shall be compelled to labour as the peasants of Europe for a half ration, yet, have we not passed the limits which our peculiar advantages extend to us? Why sir, take for example an acre of land employed in the production of wool, it is tythed by the parson, tythed by the landlord, tythed by the parish poor, and tythed by his majesty, through every letter of the alphabet, and yet the wool charged with such a number and variety of impost and exactions, holds a rivalry in our own markets over our own produce, where the name of taxes is hardly known. If, sir, our people would consider the vast superiority of their condition over every other people upon earth, we should hear no more grumbling about hard times, and by the improvements in agriculture, to which necessity has driven others, we should present the spectacle approaching nearer to Eden's primitive abundance, than ever was presented even by the fertile valleys of Italy. We have every thing, except, that we should more generally awake and urge forward the ball of agricultural improvement with accelerated force.

I did not think, sir, that when I commenced this, which I intended for a short communication, that I should wander so far from my sheep pen; however, if my remarks shall induce one individual to a comparative examination of his advantages, and shall exert an influence to induce him to the full improvement of them, his example shall be worth to his neighbours more than my sheep-pen to me, and more to him than the price of ten years subscription for your paper. At any rate, you have it just as it is, with the single remark, that a distant anonymous writer enjoys the advantage of being exempt from having his practice compared with his preaching.

H. B.

Dayton, Ohio 1829.

DROUGHT.

On the effects of Stirring the surface of the Earth as a relief against Drought.

This is a trite subject, and one which we are aware has been long since settled by intelligent cultivators in all countries. It was very familiar to gardeners, and the cause of the superior production of gardens over field culture, may be attributed in part to the more frequent application of the hoe and spade. Yet it is true that a great number of farmers deny the proposition, and disapprove the practice. They think it dangerous to plough and hoe in the time of extreme drought and heat, while our own experience of twenty years has convinced us that it is much superior as a remedy against drought than watering, in the limited manner in which that must always be applied. There has never been a season in our memory in which there was a greater necessity for the application of *all* remedies against droughts, than the *present*. The drought was not only of longer duration, but it took place when the plants were least able to resist it, not having sent their roots in quest of nourishment far, wide and deep.' The early foliage also, more tender and more liable to wilt under a scorching sun and a drying wind.

In this extraordinary season, I had a small patch of early potatoes planted in a warm and sandy soil, purposely to procure an early crop; the soil was at least three quarters pure sand, mixed with some food for plants among the sand. The severe drought threatened a total loss of the crop. The potato stalks were feeble, drawn up, scarcely larger than goose quills, and I expected every day to see them wither; all hopes of a crop were abandoned. I thought that they were the fair subjects of a *desperate* experiment. On one of the hottest and dryest days, I gave them a thorough ploughing, passing the plough four times through each row; first ploughing two furrows from the hills, as near the roots as possible, without throwing out the seed potatoes, and then returning the loam or earth instantly back by two other furrows. No rain intervened for ten days. In three days after the potatoes changed their colour; they started afresh, as if they had received the benefit of ample showers, while not a drop of rain had fallen.

The dews, which were abundant, settled upon the new turned earth, while, before the ploughing, no moisture had been apparent.

The last fact, though it cannot have escaped the notice of the most careless cultivator, has not been as yet explained. We can easily see, that a soil, rendered porous, would more readily and easily convey its moisture to the roots. It becomes like a sponge, and readily permits the moisture to pass between its particles. But it is not yet understood why it attracts the moisture. Perhaps, however, this may be owing to its presenting a much greater surface to the moist air of the night. The fact, however, which is what *most concerns us*, is settled.

[* Of the plan we presume not to express an opinion, but if there be objections to any part of it, we doubt not they could be pointed out by the experience of some of our correspondents. If it were not invidious or otherwise improper, we could at once name a dozen gentlemen, amongst them, one belonging to the writer's own state, who could suggest any improvement, if any, of which his plan is susceptible, we solicit their attention.] *Ed. Am. Far.*]

Perhaps some of the experiments of our distinguished countryman, Dr. Wells, a physician of London, who rendered himself conspicuous by his remarks on dew, may tend to explain this fact, though it is not my purpose now to examine the theory.

Every man who feels an interest in the question, can satisfy himself at once by stirring a small piece of the earth, in a time of severe drought; and if he does not find it in the morning more filled with moisture than the undisturbed ground in its vicinity, let him continue a disbeliever.

But there is another mode, and it is one which I have never seen suggested, by which I apprehend the stirring of the surface, and making it light and porous, is beneficial in great droughts. It is this: light porous bodies are bad conductors of heat; perhaps because they have more air between their interstices. The facts are familiar to us. Metallic bodies acquire an intense heat under the rays of the sun; so do stones, in proportion to their density. The earth, when very compact, will become exceedingly hot; but garden loam, which is very porous, remains cool at noon-day, two inches below the surface. I believe, therefore, that moving the surface, and keeping it in a light and porous state, enables it to *resist the heat of the sun's rays;* that the air between the particles of earth communicates the heat more slowly, than the particles themselves do when in close contact.

Such is my *theory;* but I am an enemy of theories. I always distrust them; I look only to facts; and having observed that a slight covering of half an inch of sea weed would preserve my strawberries from drought, which can only arise from its lying so loose on the surface, I have been led to infer that the *undoubted fact*, that soil, in a loose pulverized state, resists drought, is *owing to the same cause*—to the slowness with which the heat of the solar rays is communicated to the roots. But be the theory sound, or unsound, I am persuaded that every farmer will find that the free use of his plough and hoe, in time of severe drought, will be of more value to him than as much manure as that labour would purchase. I have been always convinced, from my experience as an horticulturist, that the great secret of cultivation consists in making the soil porous. In raising exotic plants, we know it to be true, and our flower pots are always supplied with soil the most porous which we can obtain. The farmer may borrow light from an occupation which he looks upon with disdain, but which serves to elucidate and explain the secrets of vegetation.

[*N. E. Farmer.*

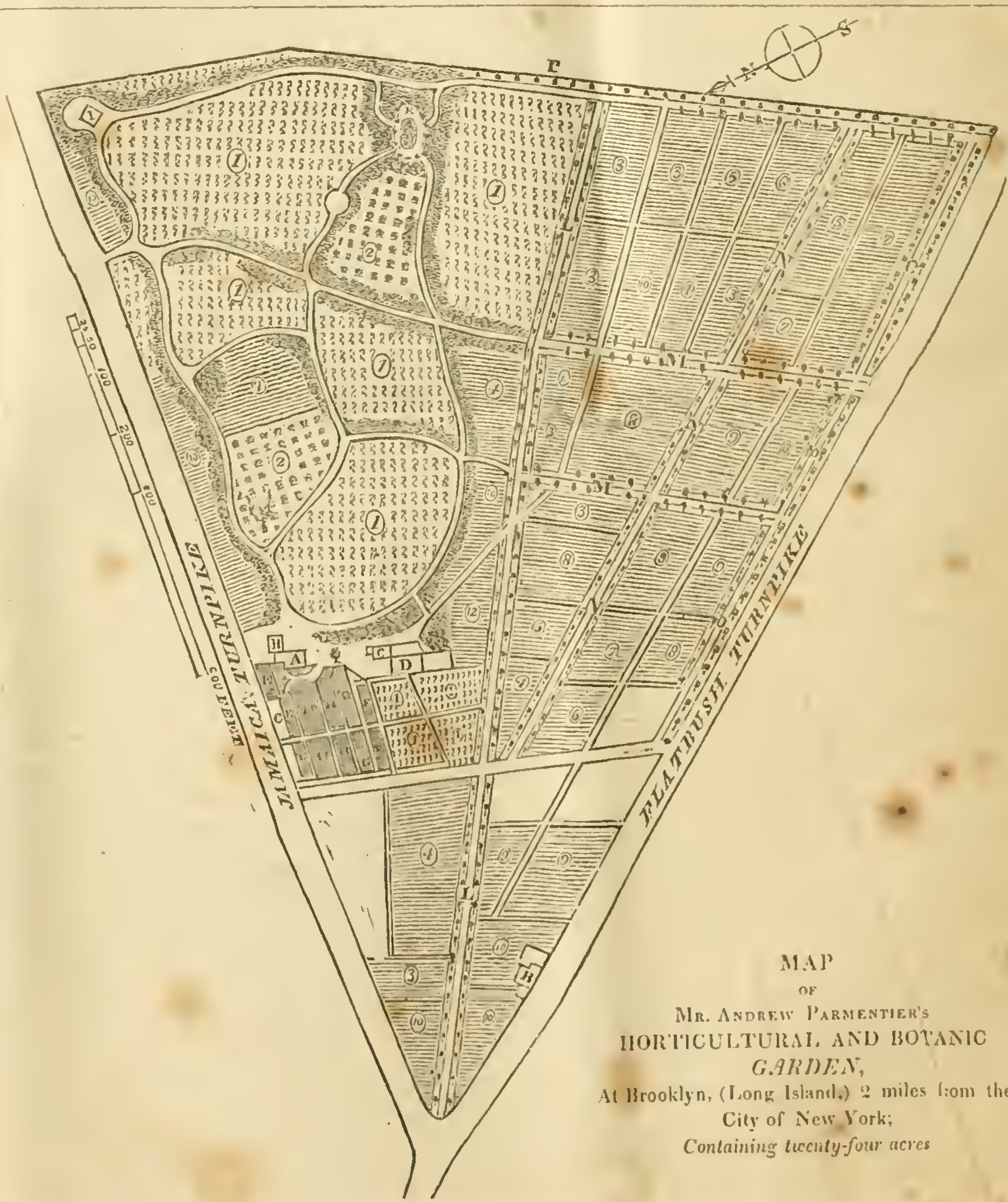
HORTICULTURE.

REFERENCES.

A. Mr. Parmentier's house.
B. Labourers' houses.
C. Tool and work house.
D. Barn.
E. Green-houses.
F. Hot-beds.
G. Place where plants remain in the summer time.
H. Herbaceous Plant garden.
I. Rustic Arbour.
K. French Saloon.
L. Nectarine and Peach trees alley.
M. Pear trees alley.
N. Apple trees alley.
O. Plum trees alley.
P. Cherry trees alley.

1. Vines, ...	10
2. Rose trees, ...	2
3. Ornamental trees,	7 sqrs.
4. Peach trees,	4 do.
5. Apple trees,	3 do.
6. Plum trees,	2 do.
7. Pear trees,	4 do.
8. Cherry trees,	3 do
9. Imported Fruit trees,	5 do.
10. Young Vines,	6 do.
11. Quince stock,	1 do.
12. Monthly Strawberries,	1 do.

⊂ Place where the manure and the weeds are collected.



MAP
OF
Mr. Andrew Parmentier's
HORTICULTURAL AND BOTANIC
GARDEN,
At Brooklyn, (Long Island,) 2 miles from the
City of New York;
Containing twenty-four acres

In a late excursion to the eastward, having received a call and an invitation from the amiable and worthy proprietor, we were much gratified by a visit to the above establishment. The access to it from Broadway is very easy by means of the *steam ferry boats* across the East river, that are in such constant motion as to give rise to scarcely a moment's delay of the passenger. They, in fact, unite the two cities so completely, that for four cents the space is passed over much quicker and with less fatigue than were the street unbroken.

Mr. Parmentier's establishment is laid out in landscape style, and serves as a specimen of the advantage that may be taken of the various shades and varieties of trees and shrubbery.

A general map of Mr. Parmentier's Garden and Nursery is here presented, by which it will be seen that the walks begin at the Mansion House and go to a place called the Rustic Arbour, from the top of which you have a fine view of the surrounding country, the city and the bay, including the quarantine ground. The visiter comes afterwards to a French saloon, environed by standard grafted umbrella locusts. In the middle of the saloon is an oval spot, filled with China monthly roses, bordered by a hedge of European privet, kept at the height of one foot; and this place, in regular style, makes a good contrast with the irregularity of the rest of the ornamental garden. From this situation we saw his large vineyard, containing, as Mr. P. told us, from ten to eleven thousand grape vines, in a flourishing situation, and its exposure to the south seemed very favourable for that object. Not without its interest, is a large oak, now the only forest tree on the place, with a huge stone at its foot—both being left as lasting vestiges of the rude condition of the desart, which, under his taste and industry, has "been made to blossom as the rose."

Near the house, are the green-houses and hotbeds, designated on the map by the letters E and F. His plants are shaded from the great heat of the sun by means of linen tents, which unroll on a frame. They are rolled up at night and on rainy days. Near the green-house plants we saw ever-bearing strawberries, without runners, loaded at the same time with fruit and flowers. These, it struck us, would be an acquisition to the south, where they would be in bearing nearly all the year; but Mr. Parmentier thinks, by experience, that they do better when somewhat shaded. They were highly flavoured and well tasted, and being without runners, the roots might be divided and planted on the borders of garden squares. The white kind, which he has lately introduced, are said to be most esteemed in France—not so with us. The rest of the garden, containing in the whole 24 acres, is kept for nurseries of fruit and ornamental trees, as designated on the map. Order and cleanliness prevailed throughout, and we are well assured that the publick may rely on the genuineness of the trees, and the integrity with which they will be served.

Mr. P. showed us his port folio of drawings of landscape gardens, and of divers ornaments in rustic style—hermitages, rotundas, &c., which we viewed with much pleasure; especially the picture of the one he has executed for Elisha W. King, Esq. of Pelham manor, Westchester county, N. York.

We went also to visit the celebrated Linnæan Botanic Garden of W. Prince, Esq. at Flushing, but the shortness of the time we had to spare, and the intense heat of the mid-day sun when we reached it, made it impracticable to see a tythe of its rich and various contents; and denied us altogether the opportunity of examining the extensive establishment opposite to it, conducted by Messrs. Mills and Prince. Of the former the reader will find a better description than we could give in the American Farmer of the 15th inst.

Ed. Am. Farmer.

RURAL ECONOMY.

FAMILY SPINNERS.

[We are sure the writer of the enclosed will excuse us for publishing the following, though it may have been intended only as a hint to ourselves. The fact it communicates will be interesting to our southern friends, who, happily, as we think, seem determined to manufacture *within their families*, as far as possible, all essential articles of domestic consumption. It is much better to begin in this small way, than to hazard large sums in manufactories for the fabrication of such articles as are liable to ruinous depreciation by alterations of the tariff. A law of five lines may make that business ruinous to-morrow which is flourishing to-day. It behoves them, therefore, to move cautiously—make in their own houses all they can, and put little at hazard.]

Mr. Skinner: *Gallatin, Ten., August 4*, 1828.

Sir,—We have had in common use, in this part of the country, for some time past, a small spinning machine, which I do not recollect to have seen noticed in the American Farmer. It was invented by one of our citizens a few years ago, and I believe he obtained a patent. I have had one of them for the last twelve months. Mine is about 4 feet high, 3½ feet long, and 2 feet wide. At one end there is a gin with six saws, at the other end are as many spindles, with a spool on each, to receive the spun yarn—and in the middle are placed two cylindrical cards, as near each other as may be, without touching. The seed cotton is placed in the gin--the spinner takes the handle, and turns away until the spools are filled, taking care to mend the threads if any should break; and in this way a woman can spin five times as much as she can on the common wheel and cards. The number of spindles may be increased, or diminished, at pleasure—six is the most common. The machines cost $20 for each spindle. The price will be less when the supply equals the demand.

If it is desired, some of our mechanics will send you a particular description of one of these machines. The original model, I suppose, is in the Patent office at Washington city. Since the first invention some valuable improvements have been made. The quality of the thread is excellent—the finest is an eight-hundred.

Until yesterday we were suffering from drought. Last evening we had a plentiful rain, and our crops are now very fine.

Yours, respectfully,
ELIJAH BODDIE.

SUBSTITUTE FOR RINGING SWINE.

To prevent swine from digging in the soil, the best method is to cut the two tendons of their snouts with a sharp knife, about an inch and a half from the nose. This may be done with little pain, and no prejudice to the animal, when about two or three months old. The common practice of restraining them by rings fixed in the snout, is painful and troublesome; they must be replaced as often as they give way, and that happens so frequently, that rings afford but little security against the nuisance. [*Loudon.*

[By pressing down the snout, the tendon which gives it flexibility and power is easily discovered, and a single prick with a sharp knife, severs it, and leaves the hog without the power of rooting forever after. The experiment is readily made.]

Before you make a promise, consider well its importance, and ascertain whether you can perform it.

Never advise a man to go to war, or to marry.

INTERNAL IMPROVEMENT.

INLAND NAVIGATION.

Northern Section of the United States.

In my last communication on the Erie and Welland Canals, the following prediction was made "The day is approaching by not slow advance, when the free navigation of the St. Lawrence, will be demanded by the people of the north-western sections of the United States, and demanded in a voice, which neither the governments, United States or British, will be able to disregard."

The probability of such a state of things, coming into existence, at a period much too near the present, for European political calculators, will be I hope made manifest by the subjoined *expose*.

As a physical section of the earth, the basin of St. Lawrence, extends from the southern sources of Maumee of Lake Erie, N. lat. 40° 95, to the sources of Black and Bustard rivers; falling into the north side of the gulf of St. Lawrence, N. lat. 52° 25; and in lon. from cape Whittle of Labrador, 17° E. from Washington city, to the sources of St. Louis river, of Lake Superior, 17° W. from Washington city. The general direction of this basin, from the ocean is S. W. by W., about 1500 miles.

Measured by the Rhumbs, the results are:

Rhumbs between.	*Square miles.*
40° and 41	3,686
41 “ 42	21,780
42 “ 43	39,325
43 “ 44	49,221
44 “ 45	58,752
45 “ 46	67,940
46 “ 47	76,728
47 “ 48	81,875
48 “ 49	32,140
49 “ 50	28,323
50 “ 51	36,792
51 “ 52	18,096
Total area	514,661

This table exhibits the extent and geographical position of St. Lawrence basin, without reference to political subdivision; the water surface is expressed in round numbers.

Table of the superfices of the Lakes and Rivers in St. Lawrence Basin.

	Mean length.	*Mean breadth.*	*Area in square miles.*
Lake Superior	300	80	24,000
Huron	200	95	19,000
Michigan	300	50	15,000
Erie	230	35	8,050
Ontario	180	30	5,400
St. Lawrence, and other minor rivers, and smaller lakes,			1,500
Amount of water area,			72,950

Deducting, therefore, 72,950 from 514,661 square miles, we have 441,711, as the land area of St. Lawrence basin. Of this immense region the respective portions possessed by the United States and Great Britain, are very nearly as 29 to the latter, and 15 to the former government, or not very far from a proportion of two to one: but, when the advantages of climate, contiguity to the Mississippi basin, and to the central tide rivers of the United States, are brought into the estimate, the smaller section of the St. Lawrence basin has a very decided preponderating value as a commercial and agricultural surface.

Taken as a whole, the extent of the great Canadian basin, will best appear by comparison. It is nearly equal to the Spanish Peninsula, France and the British islands combined; and what many will feel disposed to doubt, the St. Lawrence basin is fully capable by nature to sustain an equal, or I had almost asserted a superior population to the aggregate of Spain, France and Great Britain. Those three sections of the earth, now (1828) contain 65 million of inhabitants, or a distributive aggregate population of about 140 to the square mile. An equal density on the Canadian basin would give a total of 61,700,000.

Compared with the United States, the basin of St. Lawrence exceeds in area, the whole Atlantic states, as 5 to 3 very nearly. The Atlantic states on a surface of about 260,000 square miles, sustains at present it is probable 10,000,000 of inhabitants, or say 38 to the square mile. If the Canadian basin, was even thus populated, the aggregate would be nearly 17 million.

To those of my readers who collect evidence before forming their opinions, the preceding will excite to farther examination into the peculiar causes, which have effected an unparalleled increase of population in the United States and Canada; and again, into the peculiar causes, which must operate to place a density around the Canadian lakes, beyond a general mean. The British provinces of Upper and Lower Canada, contained in 1763, about 70,000 inhabitants; in 1775, 90,000; in 1814, 335,000, and at present, 1828, from every concurrent data, about 500,000. The United States part of the basin, comprised in Vermont, New York, Pennsylvania, Ohio, Michigan, and Indiana, contains an aggregate, little if any less than that of the two Canadas. We may consequently assume one million as the existing population of St. Lawrence basin.

In 1775, or fifty-three years past, this region sustained, scattered settlements from Mingan to Detroit, peopled by less than 100,000 persons, doubling in 15 years very nearly. To be within bounds, however, we shall here assume a period of 20 years; and on that certainly too far extended base of calculation, the Canadian basin will comprise in another half century, 8 millions of inhabitants:—It would be more consonant with existing data to say 12 millions; but with the former moderate accumulation, one half at least in the United States, the free navigation of the St. Lawrence will be as completely a matter of course, as it will be for that stream to flow into the Atlantic ocean. Leaving nevertheless, political revolutions to their course in the current of time, we shall proceed with our geographical view of St. Lawrence.

It is rather difficult to fix, with any very great precision, the real mouth of St. Lawrence, a line drawn from Cape Rosier in Gaspe of New Brunswick, touching the western point of the island of Anticosti, and extended to Mingan in Labrador, seems the natural termination of this great river. In order to enable the reader to follow the subsequent descriptions with more facility and clearness, the following table of stationary distances is inserted.

West point of Anticosti to Cape Carriboeuf,	m. 100
Black river from N. W.	50—150
Brestard river from N. W.	10—160
Betsiamitis river from N. W. . . .	12—172
Mouth of Saguenay river from N. W.	70—242
Isle au Coudre, ...	55—297
Lower point of the Island of Orleans, .	27—324
Head of the Island of Orleans, . .	21—345
QUEBEC, ...	7—352
Mouth of Chaudiere river from S. E. .	6—358
St. James Cartier river, and village on the N. W.	25—383
Richelieu Rapids, ...	4—387
Sta. Anna, river and village on the N. W.	20—407
Mouth of the river Becancour from S. E.	20—427
Town of Three Rivers, mouth of St. Maurice river, from the N. W. and head of tide water, ...	5—432
Lower end of Lake St. Peter, . .	12—444
Mouths of St. Francis and Yamassee rivers, falling nearly together into the south side of lake St. Peter, . .	16—460
Town of William Henry, mouth of Chambly river, from the S. and head of lake St. Peter, ...	12—472
Lower point of the island of Montreal,	30—502
City of Montreal, ...	15—517
Village of La Chine, ...	6—523
Head of lake St. Louis, ...	17—540
Rapids aux Cedres, ...	4—544
Lower end of lake St. Francis, . .	8—552
Baudet river and limit on the N. W. side of St. Lawrence, between the two Canadas,	12—564
Mouth of St. Regis river, N. lat. 45, and northern limit of the United States on St. Lawrence, ...	18—582
Narrows at the lower end of Long Sault Rapids, ...	16—598
Head of Long Sault Rapids, . .	16—614
Ogdensburg, at the mouth of Oswegatchie river, St. Lawrence county, New York,	25—639
Prescott in Grenville county, Upper Canada, ...	1—640
Brockville, Leeds county, Upper Canada, and lower end of Thousand Islands, .	12—652
Gananoqui river, Upper Canada, .	27—679
Kingston, and lower extremity of lake Ontario, ...	16—695

From these distances we find the tide rising in St. Lawrence 472 miles above the island of Anticosti, and if that in the Amazon is excepted, the highest known tide, exceeding that in the Hudson, more than three to one. In the distance of 223 miles above the head of tides, into lake Ontario the rise is 231 feet. The elevation terminates, however, in great part near Ogdensburg, as the level of lake Ontario is but very little above that of St. Lawrence at the head of the Galloupe islands, 5 miles below that village. The obstructions to an easy boat navigation of St. Lawrence, commences descending below Ontario, by Rapids at the Galloupe islands. The common lake vessels used on Ontario are navigated to and from Ogdensburg, as are those of 600 tons burthen, upwards to Montreal. The intermediate space of 122 miles is all that would demand a canal to open a complete and unembarrassed navigation of the lower part of this immense basin to the ocean, from the mouth of Niagara river.

To describe the various rapids and shoals between Ogdensburg and Montreal, would, without an accompanying map, convey but a vague idea of the real features of the river. From an actual examination of the New York shore of St. Lawrence, in 1818, I could not avoid the conclusion, that a canal along its shore would be a cheaper improvement than any works made in the channel. This river indeed in one respect presents fewer obstacles to works, either in or along its channel, than any other of the North American streams. It is entirely exempt from sudden rise, and from excessive inundations. The extremes of its rise and fall in a period of a century, would at the utmost fall within 4 feet, the rise and fall very slow.

The component materials of its shores are in most places solid rock; in some places marshes occur, but in general the banks rise by an elegant sweep from the water margin; the course in a remarkable manner, direct from S. W. to N. E. If such a design would not appear too vast, I should at once say, canal lines from tide water at Montreal, to join the New York canals in both directions would be the most eligible improvement, and particularly towards Erie. One insuperable impediment to ship navigation, on the Canadian sea, the prevalence of western and north-western winds, superinduce a necessity for canals. This obstacle is beyond all human control, and added to the other grounds of preference given in my last number, must in the end, as population advances decide a recourse to artificial channels.

This paper was written to call public attention to the vast capabilities of St. Lawrence basin, and not from any expectation that some of the artificial meliorations will soon be made; but though the sketches are perspective, and completion distant, yet if we regard the past, we are fully warranted in anticipating the execution within a few years of works not yet designed. The people of Canada have constructed one canal of 6 miles, from the village of La Chine to Montreal, as has been shewn in my last, the Canada Land Company is securely and rapidly conducting to a consummation, the very important Welland Canal. That great work, however, is not the only one of its kind designed in Canada. The design, plan and execution of another, of little if any less consequence, will, it is probable speedily follow the opening of the Welland.

From the peculiar position and indenting of the shores of Ontario, Erie and Huron, and the intermediate lakes and rivers, nature has offered a canal route which cannot be much longer neglected. If we suppose Kingston on the lower extremity of lake Ontario, a point of outset, the distances to the centre of lake Huron will be, as expressed in the two subjoined tables.

	Miles.
Kingston up lake Ontario to port Dalhousie, at the northern locks of the Welland Canal, ...	180
Port Maitland on lake Erie, without estimating particular windings, . .	30—210
Up lake Erie to Detroit, . . .	245—455
Centre of lake Huron, . . .	210—665

Kingston, through the bay of Quinte to the mouth of Trent river, ...	70
Up Trent river into Rice lake, . .	60—130
Through Rice, and other lakes to the summit level between lakes Ontario and Huron, ...	110—240
Down Talbot river into lake Simcoe, .	15—255
Outlet of lake Simcoe into Severn river,	20
Down Severn river, into Gloucester bay of lake Huron, ...	50—305
Centre of lake Huron, ...	150—455

Thus we find that with all the windings and indenting of the lakes and rivers, it is only 255 miles from the head of St. Lawrence at Kingston, by the northern or lake Simcoe route, and only 455 to the centre of lake Huron; whilst by lake Erie, Detroit, and St. Clair river it is 665 miles, difference as 13 to 22 very nearly.

The reader may again be reminded, that above the Falls of Niagara, no vessels drawing more than 7 feet water can be navigated over, and intermediately between the upper lakes; although a much greater, indeed an unfathomable depth exists in the central parts of Huron and Superior, yet the straits of St. Clair, lake St. Clair, Detroit river, and lake Erie, and its harbors, all demand light vessels of 6 or 7 feet draught.

When the Welland Canal is opened, the common lake vessels will be transported from Ogdensburg to the Falls of St. Mary. Impeded as it is by rapids and shoals, the St. Lawrence is already navigated to an immense extent with boats, plying between Kingston and Montreal, and for immense rafts of timber, which are floated, without frequent loss from lake Ontario to La Chine. I once witnessed upwards of twenty of these enormous masses, guided by from 4 or 5 to 15 or 20 men, pass the Galloupe rapids in one day.

A canal to pass the Falls of St. Mary with those I have mentioned, would complete the necessary works to open the wide spread regions of St. Lawrence to the Atlantic navigation. By those who know nothing of its real features, coldness, and sterility are made use of to describe the two Canadas, and never was any description less just. I know no part of the earth, where more is combined to invigorate, sustain, and render happy human life.

On an extent embracing 11 degrees of latitude, great difference of temperature must exist; and on a space exceeding 514 thousand square miles, great diversity of soil must also exist. That basin now contains a white population, exceeding the aggregate of that of the British and French North American colonies in 1700, with all the inspiring stimulus given by recent and daily augmenting improvement. Whatever may be the future destiny of Canada, a deterioration of its people either mentally or politically is not to be expected. The example of the United States would lead us to presuppose a different result, and that a colony who could execute the Welland Canal, promises to one day assume a rank amongst nations of the highest order.

SPORTING OLIO.

STOUTNESS OF ENGLISH HARES.

[How much stouter the English hare than ours, may be seen by all the accounts of the sport they afford in that country where large packs of *harriers* (a dog between the fox hound and the beagle) are kept for hunting them and where the best pack is often baffled and defied for more than an hour. We shall give, occasionally, a few of these accounts to show what fine sport they can make.]

An Extraordinary Day's Sport by Harriers.

Mr. Thomas Blake's justly celebrated pack of harriers threw off on Thursday, the 8th instant, on Coombe Hill, and immediately found a hare. One of the most certain hounds (Ruler) gave tongue, which was quickly answered by the whole pack; away they went, the scent laying breast high, to Martin Church, a distance of twelve miles, without a single check; the hounds here came to a fault for a few minutes, when lo and behold! reynard (a smoky old dog-fox) was tallied from among the tomb-stones, and, taking a final farewell of the consecrated ground (where, by the by, he certainly had no right to *intrude*), broke view in a most gallant style for Tidpit Damerham, over a heavy country, to West Park, where, after running him through the greater part of the immense covers, he was run to ground, dug out, and *divided* amongst the hounds. For the last eight miles, T. Blake, Esq., who was on his famous hunter, Nimrod, took such astonishing leaps, as wonderfully to excite the surprise and admiration of every one that was up to see him. After the first burst, the Salisbury citizens were beat to a stand-still; and the clod-hoppers, who joined at Martin, were obliged to run grinning behind. It is but justice to say, the hounds packed so well, that they might have been covered with a winnowing sheet. Returning homewards, they met the stragglers, and were enjoying their laugh with the greatest glee (being highly delighted with their day's sport), when another hare jumped up in view—nothing could stop the staunch-mettled hounds, and, after an unexpected run of *one hour and twenty minutes*, they killed. Horses and dogs, with the sportsmen, now cried "hold, enough;" and dusk coming on, they separated for their homes, resolved unanimously, at their next annual dinner, the first toast after "the king," should be "fox-hunting."

A short time since, as the beagles of Mr. Cooper, at Seaford, were running a hare, in gallant style, close to the edge of the cliff, one of the dogs, the best of the pack, ran over the precipice, and was killed. A few days afterwards, the whole of the above dogs, whilst in their eager pursuit of another hare, followed her over the cliff; but the rock projecting at about midway from the summit, they alighted on the shelf, and were rescued without injury; poor puss, however, fell to the bottom, and being unhurt, she made along the beach towards one of the towers, but being headed by some blockade men, she turned, and went to sea, actually swimming half a mile before she was overtaken by a boat that had put off to her assistance, and which rescued her from a watery grave.

The harriers of T. Cobley, Esq. of Colebrook, met a few days since at Dowrick, near Crediton, and, after killing two hares (one of which ran well for near an hour, and then fell into the clutches of Young Matchless), found a third at Priorton Barton; she took her first course through Dowrick, towards Hellions, where, being turned by a woman, she came back to the cover first found in; here she was not allowed to stop long, being closely pursued, and took towards Pughill; when near the village, she made a double, backed about two miles of the road, ran through Leesbeer, Penhay; and part of Woolfardisworthy, then doubled back to Penhay Brakes, and Colleton Farm, when she got a little a head of her pursuers, and here she threw herself into seat, but was soon found by old Madcap, and quickly killed, near Puddington Chappel, after a run of more than two hours, over upwards of twenty miles of ground, some of it the worst, for hunting, in the neighbourhood. Out of a large field, only four were in at the death, viz. Messrs. Tremlett, Burrington, Smith, and G. Burrington, the two latter mounted on ponies not exceeding thirteen hands high.

The Pembrokeshire hunt-week was remarkable for the excellent sport which it produced. The hounds had some capital runs, and the beautiful pack of dwarf beagles, belonging to Mr. Scourfield, rivalled them by killing two or three hares, one of them after a chase of ten miles, at a bursting pace. Messrs. Ackland and Scourfield are appointed stewards for next year's meeting. [*London paper*.

THE FARMER.

Baltimore, Friday, August 29, 1828.

☞ Until within the last three weeks, the season has been uncommonly favourable in this vicinity. Latter corn in the country, and vegetables in the neighbouring gardens and the pastures are now suffering greviously for want of rain. The weather too has been for a week intensely hot, the mercury frequently rising to 90 degrees. In New York it seems the weather has been very similar to what we have had here, as appears by the following:

The Weather.—For many days until last Saturday the weather has been uncommonly agreeable for the season. At present the heat is excessive, and the herbage in the surrounding country, which during the present season has been so verdant and luxuriant, is beginning to wither and fade under the influence of the drought. The following is a series of thermometrical observations for the last seven days.

	6 A. M.	3 P. M.	6 P. M.
August 20,	67	73	75
21,	67	80	73
22,	70	80	72
23,	70	80	73
24,	69	84	86
25,	75	89	82
26,	76	84 at 12 o'clock.	

☞ *Another valuable Importation.*—We learn from the Philadelphian papers, that Col. Powel received last week, by the Alexander, another improved short horn cow, of extraordinary qualities; it being stated that, as appears by certificate, she gave in the month of June last, 30 quarts of milk per day, yielding 19½ pounds avoirdupois of butter in one week; and that she had continued to give milk to the time of her calving. Col. Powel, with the best lights and knowledge upon the subject has taken extraordinary pains, and been heedless of expense in procuring the very best of that race of cattle in England; and having made his selections from the herds of the most eminent breeders of improved short horns in that country, it may be fairly inferred that his own stock, for the number, is probably not any where equalled.

A Beautiful New and Useful Invention

By Mr. Peter Laporte.

We have in our possession, and shall be glad to exhibit, a beautiful and *robber-proof* travelling trunk, made of a new material, which is thus described in the specification of the patentee.

"This cloth is made of hemp and wire which is spun together, wove and twilled in the same way that all other cloths are. The hemp is twisted tight round the wires, and they are then woven together in the manner in which the common bagging is made. It may however, be wove tight or open to suit the purposes for which it may be required, and after this operation it should, in all cases, be painted on both sides; this serves to prevent the hemp from rotting, and the wire from rusting. You may, if you please, put many coats of paint upon it, (suited to the object) which will make the surface solid, smooth and elegant. This cloth may be used for many purposes, not only for boots of stages, but for carpeting, sacking bottoms of bedsteads, fancy chairs, sofas, pannels, (or in fact bodies) or roofs of carriages, baskets, water buckets, for travelling trunks, or the security of the mails."

There would really seem to be no end to the durability of whatever is constructed of these materials, and we know not why they may not be applied to all the objects enumerated, as well as various others. The trunk while it is completely impenetrable, is lighter than the ordinary trunk. We really think that editors of papers, would benefit the public, by the notice of this invention, whilst they would assuredly serve a very worthy citizen, by contributing to bring his valuable invention into immediate use.

(From the New York Mercantile Advertiser, August 25.)

Late from Europe.

The packet ships *William Thompson*, and *William Byrnes*, arrived on Saturday evening from Liverpool, the former having sailed on the 17th, and the latter on the 9th ult.

The most interesting of the articles of intelligence, are the improvement in the Cotton market—the surrender of Oporto to Don Miguel—and the movements of the Russian army.

Our Tariff caused a good deal of excitement in England. Mr. Huskisson had given notice that he should move on the 17th, an address to the King, for the purpose of having laid on the table any communications which had passed between the British and the United States governments, and copies of instructions sent to the British Minister in the United States, relative to the late Tariff.

The House of Commons have voted the sum of £30,000, for fortifications in Canada.

Surrender of Oporto.

The hopes of the public are finally disappointed with regard to the result of the anticipated struggle in Portugal, and Miguel I. its absolute king, now reigning with as little opposition or control at Oporto as at Lisbon. In the former city he can even command a double round of illuminations, a double explosion of *Te Deums* and sky-rockets, of piety and gunpowder, for aiding military success to his kingly elevation.—By two vessels which arrived yesterday, off Dover, (the James Brown and the True Love,) we have received letters from Oporto of the 5th instant inclusive, and nothing could be more disastrous to the Junta than the intelligence which they communicate. The army of Don Miguel I. was then in possession of the city. The troops of Don Pedro had been completely dispersed, and their leaders had taken refuge on board the steam-boat in the Douro. Such order as the Miguelists mean to give and to maintain had been perfectly established, and no trace existed of any resistance to the usurper's power.

THE RUSSIAN ARMY.

A courier from the camp before Brailow brings the news that that place capitulated on the 20th. An attack made by the Russians on the 17th and 18th was repulsed by the garrison with desperate courage. The Russians are said to have lost above 5,000 men, two generals, and 70 officers.

It is said that the garrison was allowed to retire at liberty, on account of its courageous resistance. We learn also that Admiral Greig, with part of the Black Sea fleet, has appeared before Verna.

Bucharest, June 20.

The garrison of Brailow has received permission to retire to Silistria, but as the Russians are beyond Mutchin and before Silistria, we do not know which way the garrison of Brailow can retreat. It is said that great quantities of ammunition, and above 180 cannons, were found in the place.

From the Camp, Karassou, June 24.

We have just taken possession of the fortifications of Brailow. In conformity with the terms of the capitulation of that fortress, the troops to whom its defence was confided, have abandoned all the artillery which they possessed, as well as the stores which belonged to the Turkish government, and are themselves to be sent back towards Silistria. Already 1200 men are on their march towards that city, escorted by the regiment *de Perme*.

At Matschin, 87 pieces of cannon, which defended the ramparts, a considerable quantity of powder, bullets, and arms, large magazines of wheat and barley, and four standards, as well as all the ships of the Turkish flotilla which had escaped from the battle of the 28th, are in our power.

We have learned on this occasion, that Achmed Bey, who commanded the flotilla, has been killed in the same battle, while attempting to reach Brailow in a small boat.

This morning Lieut. General Ruddiger sent to the Emperor the keys of Kustendgi, which he had vigorously cannonaded on the 20th.

Two hours after the news had been received of the fall of Kustendgi, the Emperor received that of the taking of Hirsova.

At Hirsova we captured 44 standards, 50,000 bullets, 3.500 pounds of powder, and a considerable supply of barley and corn.

COMMERCIAL RECORD.

LIVERPOOL, July 15.—Prices are advanced 1-8 per lb. in the middle and lower qualities of Upland, Orleans, and Alabama Cottons, and the better sorts are more saleable at the full prices of the previous week. The total sales from the 5th to the 11th inst. inclusive, are computed at 20,410 bags, including 300 Sea Islands at 12¼d a 15d; 50 stained do. 7 a 10¼; 9670 Uplands, 6 a 7¼, 12 at 7¼; 1770 Orleans, 6½ a 8, and 70 at 9d.

Holders continue to meet the demand freely, but contend for the late advance. The sales on the 12th and yesterday, were estimated at 2500 bags each day. The import last week was 16,210 bags.

Ashes—There is no alteration this week in our market; the sales amount to 135 bbls. of New York Pot, at 30s. 6d.; 25 bbls. of N. York Pearl at 28s.; and 30 bbls. of Montreal Pots, of the brand of 1827, at 29s. 6d. a 30s. per cwt. At the public sale of Montreal Pot Ashes yesterday, 100 bbls. new inspection sold at 29s. 6d. a 30s. per cwt., but those of the old were taken in for want of bidders.

Tar—400 bbls. of thick roany, selected for sheep smearing, sold at 15s. per bbl.

Turpentine continues to decline; 2100 barrels of good new having been sold at 11s. 3d., and on Saturday 1000 barrels, per Caledonia, at 11s. per cwt.

Rice—45 casks of middling fair to good quality, have been sold at 17s. a 18s. 3d. per cwt.

A sale of 20 hhds. old New York Bark have been made at 10s. 9d. per cwt.

Hides—500 New York salted have been sold at 4 3-8 a 4 5-8 per lb.

Flour—500 bbls. New York, in bond, sold at 25s. 6d. per bbl. for export.

July 16—The sales of Cotton yesterday were estimated at 3000 bags, a part to speculators; in price there was no change.

CABBAGE SEED.

The undersigned hath received by the ships James Perkins and Herald, from England, a supply of first rate Cabbage Seeds, which he now offers for sale. To those who in former years have bought seeds of him, he need only say these seeds are raised by the same gentleman who hath supplied him these last eleven years with such excellent seeds. To those unacquainted with them, he would observe that they are exceedingly well adapted to this climate for a spring crop; they produce large hard white heads, by the beginning of May, and are of a very fine flavour and the most handsome form. These seeds are raised by one of the first botanic gardeners in the neighbourhood of London, and are of exceedingly approved kinds and quality. In confirmation of the above, I will here subjoin a copy of a certificate that was given me four years since, for insertion in the American Farmer, by six of the most respectable gardeners of the Baltimore market, who still continue to purchase and sow these seeds.

Baltimore, July 14, 1824.

We, the undersigned, hereby certify that the cabbage seeds called Early George, Bullock's Heart, Early York, and Early Wellington, which are imported and sold by Samuel Ault, are of the very best quality; having made use of them ourselves for several years, we pronounce them early and genuine, likewise very hardy in standing the winter. As witness our hands,

JOHN MYCROFT,
THOMAS LEWIS,
EDMUND EVINS,
PETER HATMAN,
SAMUEL REGISTER,
VALENTINE SUTZ.

The price of the above seed is 37½ cents per ounce, or $4.00 per pound. The ounce will yield upwards of 2000 fine cabbages. The time to sow these seeds is from the 10th to the 25th of September. Printed directions respecting the proper soil, treatment and cultivation of these cabbages, will be given gratis with each parcel of seed. Orders, with remittance, from all parts of the United States, (*postage paid*,) will be promptly attended to, if directed to "Samuel Ault, No. 78 Bridge street, Baltimore." I have likewise Drum Head, Flat Dutch, Green Dutch Cabbage; Savoy, Early Harvest, and Early Screw cabbage seeds. Also, Cauliflower, Brocoli, and Radish seeds of all kinds, warranted first quality.

SAMUEL AULT.

WOOL CARDING.

The subscriber has erected a WOOL CARDING MACHINE, at the stand formerly occupied by Wm. Brown and Samuel S. Smith, as a Plaister Mill, on Low, between Front and High streets, Old Town, and adjoining the market yard occupied by Nicholas Gorsuch—where all persons can have their wool carded in the best manner, and at the shortest notice, the cards being of the best quality.

For the convenience of persons on the *Eastern Shore of Maryland*, and in *Virginia*, I have made arrangements with M. Balderston, No. 61 Smith's wharf, to receive all wool coming by water; and it will be taken from and returned to the aforesaid store, free of any charge other than for the carding, which will be eight cents per pound.

JACOB ELY.

MERINO SHEEP.

A small flock of very superior MERINO and SAXONY-MERINO SHEEP is offered for sale on very moderate terms, consisting of 37 bearing Ewes, 112 Ewe Lambs, with 15 Werders, and 3 superior half Saxony Bucks from the stock of William J. Miller. Application to be made to R. P. L., at the Post Office, Frankford, Pa., near which the flock may be seen.

Frankford, Pa., Aug. 19.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

TOBACCO.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 327 hhds. Maryland, and 28 hhds. Ohio.

FLOUR—white wheat family, $6.00 *a* 7.00—superfine Howard-street, 5.12½ *a* 5.25; city mills, 5.00; Susquehanna, 5.00—CORN MEAL, per bbl. 2.50—GRAIN, best red wheat, .90 *a* .93—best white wheat, 1.00 *a* 1.10—ordinary to good, .80 *a* .90—CORN, .32 *a* .34—RYE, .40—OATS, bush. .19 *a* .21—BEANS, 1.25—PEAS, .60 *a* .75—CLOVER SEED, 4.25—TIMOTHY, 1.50 *a* 2.25—ORCHARD GRASS SEED, 2.25 *a* 3—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 pr. lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds. 1st proof, 20½ *a* .21—bbls. .22½—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—BACON, hams, Balt. cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Sales of fair quality red wheat yesterday, at 90 to 91 cts.; do. of white, 98 to 1.05; do. of corn, 34 cts., and yellow do. at 36 cents.

MARKETING—Butter, per lb. .12½ *a* 25; Eggs, dozen, .12½; Potatoes, bush. .75; Chickens, dozen, 2.00 *a* 2.50. Beef prime pieces, lb. .8 *a* .10; Veal, .6; Mutton, .6½ *a* .7; young Ducks, doz. 2.50; young Lambs, dressed, 1.75; Pigs, do. .75 *a* 87½; prime Beef on the hoof, 5.50 *a* 6.00; Sausages, lb. .8 *a* .10; Soft Crabs, doz. .50 *a* .75; Hard do. .12½ *a*. 18¾; Peaches, 1.50 per peck; Pears, .25 *a* .37 per peck; Apples, .12 *a* .25 per peck; green Corn, .10 per dozen.

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AGRICULTURE.

WASHING OF RIVER BANKS.

Mr. Skinner, *Near Easton, Md., July 28, 1828.*

Sir,—In reading the last number of the American Farmer, I observed the letter of Mr. Jacocks, addressed to you, upon the subject of the washing of his banks by the waters of a river, in which he repeats his request for information of a remedy by which that injury may be prevented. I was thus reminded of his former publication which appeared in your paper some years ago,* in which the same grievance is complained of, and also another, occasioned by a troublesome plant, which very hurtfully annoyed his crops.

Both subjects engaged my attention at the time; and availing myself of a little leisure, I sketched out my observations and opinions in relation to each of his complaints. But claims of business, or listlessness, or perhaps a want of entire confidence in the expedients proposed, induced me to lay the draft aside, and leave it since neglected.

As Mr. Jacocks has renewed his application for advice from those who may be willing to offer some plan for his relief, and as reasonable suggestions of any kind may lead to useful reflections, and in the end produce an effectual preventive, I have taken the liberty of sending you a copy of my observations; and if you shall consider them of any advantage to him, and to others in a similar situation, you may insert them in the Farmer.

I am, sir, very respectfully,
Your obed't serv't,
N. HAMMOND.

To the Editor of the American Farmer:

Sir,—Every letter addressed to you in your editorial character, may be considered as addressed to all the readers of your paper; and therefore any of them, who from experience or observation may be enabled to improve the practice, or to satisfy the inquiries of your correspondents, may be presumed to be authorized to offer his assistance.

Many pieces, indeed, have already appeared in your useful volumes, on which I have often intended to publish my reflections; but the course of my engagements has not afforded me the necessary leisure. Since the arrival of your last number, a more favourable opportunity has been allowed, and it is about to be employed in making some answer to the complaint of Mr. Jacocks upon the injurious wasting of his shores by the action of the wind and waves.

Proprietors in general, situated as he is, are subject to the like inconveniences, and must be equally desirous of knowing in what manner to prevent them.

Upon the broad waters of Choptank river, on the Eastern Shore, on the banks of which this loss is seriously suffered, some of the owners have, within a few years past, used hedges of bush-wood with great advantage. It is probable that this practice originated in the accidental discovery of the effects produced upon the shores by old neglected fish-weirs, along the sides of which the sand and earth were found to bank considerably and these banks, gradually increasing beyond the surface of common tides, became coated with bent and water-grass, and gave a firm protection to the shore. The expedient of erecting a fence *along* the shore, and filling the space between the rails and the bank with bushes and brush-wood, has afforded no protection; and this scheme seems to be abandoned. The remedy now practised, consists in setting a hedge *across from the bank* of the shore twenty, thirty or forty yards *into the river*, according to the depth or shallowness of the water. This is done by planting or driving stakes or poles of any kind firmly into the sand in a single row, from the foot of the bank to the extent required, (say, in shallow water, to the extent of forty or more yards,) at the distance of six or five feet, or less from each other; and then wattling or intertwining them thickly with the branches of pine or cedar bushes from the bottom of the water to the height of about three feet above the surface of it. The accumulation of sand and earth occasioned by the interception of such a hedge in the course even of one year is remarkable; and it is believed that such a hedge will last long enough to gratify the expectation of the owner who shall take the trouble to set it. He will in due time see the grass appear and extend itself; and it has always been observed, that wherever the grass or weeds become rooted on the shores of rivers, the banks cease to be undermined. The number of these hedges must depend upon the state of the shore, and the judgment or experience of the owner. They should, no doubt, be placed opposite those portions of the bank which are most affected by the winds and tides, and in such intermediate places as may give the hope of increased advantages. It is asserted also that sods of marsh grass carefully planted here and there upon the ridges of sand so formed, will take root and spread themselves extensively, and hasten the security so much desired. But of this fact I have no knowledge; though a trial so easily made is strongly recommended. If Mr. Jacocks could induce his *wild peas* to grow upon his shores with the same luxuriance with which they prosper in his fields, he may be assured they would effectually protect his banks, and compensate in some degree the mischiefs they occasion in other objects of his care.

Perhaps these mischiefs cannot now be entirely prevented; but it is believed they may be mitigated by a course of husbandry which, though approved by a few, is however rejected by the many. It is proposed to Mr. Jacocks, as an experiment, when about to cultivate his fields for indian corn next spring, to *trench-plough* a portion of it, and to work or dress the crop in a shallow manner, keeping the sward, weeds and seeds below: let him leave the corn stubble in this state till the following spring. Then let it be trench-ploughed* again and sown in oats, using the harrow and roller. About the 10th of August, let him trench-plough the oat stubble, and carefully roll it over. About the 10th of October, let it be trench-ploughed again, sown in wheat, and well harrowed and rolled, opening and clearing the intermediate furrows: but at this time the ground will be so broken and mellow in consequence of the previous culture that the same team will plough it up as deeply in a single forrow as the preceding trench-ploughing; but so deep it ought to be ploughed. By this process, it is thought that, though the wild pea may not be destroyed, the growth of it will be so suspended as not materially to affect his crop of wheat. And, if this be spared, it may be supposed from his account of it, that the succeeding growth of the pea ought to be desirable as furnishing fine pasturage, good hay, and a valuable cover for the ground. N. H.

Talbot county, Md., April 2, 1821.

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* See 3d vol., p. 6.

* By trench-ploughing is not intended deep ploughing with the use of a single plough, which is extremely laborious; but the operation of two ploughs, one after the other, or of the same plough going twice in the same furrow—an operation easy and much more effective, though requiring more time. The first plough runs four inches deep, and the succeeding plough four inches more; and thus a trench is made in which the sward is buried, and furnishes nourishment to the deep roots of corn. But the ground must always be ploughed to the same depth, and the different performances so regulated that the soil be brought uppermost when wheat or other small grain is about to be sown. It is believed that the disappointment occasioned by deep ploughing, has generally been caused by omitting to direct the same depth of ploughing in the subsequent operations, and thus leaving the soil buried in the original trench. In dressing the crop of corn, all the instruments should work to a depth less than four inches, so as not to disturb the sward.

LARGE CALVES.

Cayuga Villa, Tompkins co., N. Y., Aug 14, 1828.
Mr. Skinner,

Sir,—In a communication of D. Williamson, Jr., on page 176, of the 8th vol. of the American Farmer, he mentions 102 lbs as a very great weight of a full blood improved short horned Durham calf. In the summer of last year I had dropped (or rather taken,) from a cow of our small country breed, a calf weighing 105 lbs. The calf was dead when extracted, owing to a difficult parturition and the cow not having timely assistance. There was also dropped by a common country cow, which I sold this spring before calving, a calf weighing the same, (105 lbs.) These calves were both from my full blood bull of the mixed Lancashire long horned and Holderness breeds; and there have been various calves from the same bull and common cows weighing 93 lbs. and upwards. I have not weighed any of my full blood calves, but doubt not from their appearance at the time they were dropped, that several of them would have exceeded the largest of these weights, and particularly a bull calf dropped this spring by a heifer not quite three years old, of the same breed with the bull before mentioned, and which had been to a young bull I own, which is half of the same breed and half of the improved short horned Durham breed. This calf I speak of particularly, he having extremely large joints, and being very long and round in the body, and also being quarter blood of the breed of which Mr. Williamson gives the specimen; which specimen I should not consider worthy of superior praise for the breed from which it is derived.

Our common country cattle are generally small, a full blood two-year old being commonly as large as the general run of full grown animals.

Very respectfully, I am, sir,
Your obed't serv't.
W. T. LAWRENCE

HIGHLAND RICE—INDIGO.

Buckingham county, Va., Aug. 18, 1828.

Mr. Skinner,

Sir,—Permit me to inquire, through the columns of your inestimable "American Farmer," whether there is any kind of grain cultivated in the United States under the denomination of "Highland Rice?" And if so, whether it is the same, or a different species from the Quinar, presented to you by F. S. Cooke, Esq., of Baltimore, in March last—where it can be obtained, and the proper process of cultivating it?

I also wish to make some inquiry relative to the Red or Turkey Indigo: Whether cotton can really be dyed red with it, and if so, what is the process?

About five-and-twenty years ago, a gentleman who had moved from this county and settled in Georgia a few years before, returned into the neighbourhood of his former residence, and brought with him some of the rice and indigo seed above mentioned, and said that cotton was dyed red with the indigo, but he had neglected to obtain a recipe how to use it.

A few days ago I ascertained that the indigo was still growing within a few miles of me, and went to see it. I found it a large *umbelliferous* plant, much larger and coarser than our common indigo, and having a yellow blossom. The old lady in whose garden it was, said she had heard that the red or Turkey cotton was dyed with it, but that she was ignorant of the process; that, in trying experiments with it, she had succeeded in producing a yellow, but could not obtain a red colour.

Your most obed't. L. BOLLING.

(From a Bedford, Pa. Paper.)

PLOUGHING,

Its Depth to be Regulated by the Nature of the Soil, and of the Crop to be raised.

Earls Stimson, and Lorain, disapprove of deep ploughing. The ideas of the former appear to be grounded on the beneficial effects of shallow ploughing on his own particular farm. It is a practical result of a solitary experiment.

Lorain argues that deep ploughing places the rich surface mould below the reach of the roots of the vegetable, and should never be resorted to except when the surface of the soil has been exhausted by a bad system of tillage, and the subsoil is rich and deep, and will supply the deficiencies in vegetable pabulum, caused by frequent ploughing and severe cropping.

The advocates of deep ploughing [and Tull led the way,] assert, that at every ploughing a great fermentation takes place, and an exhalation of many tons to the acre; and that the quantity of gas exhaled is in a ratio with the depth the earth is moved; that the ground being moved to a great depth, the roots of the plants have greater latitude to extend themselves, and consequently the facilities of collecting their food multiplied; that the moisture does not evaporate as rapidly from deep, as from shallow moved earth—consequently, the plants are less affected by dry seasons.

There is an appearance of truth in each hypothesis; but "who shall decide when doctors disagree?" It is probable the practice of each is advisable under certain circumstances. I cannot, however, reconcile the theory of Lorain with the practice of the Chinese. They never suffer their lands to rest—they plough deep and spade deep; but then they manure for every crop. But from whence comes the matter, the *material* which enables them to return as much to the soil as they take from it? We answer, by the strictest care of the barn yard manure; by a judicious use of lime, ashes, and above all, the preservation of that most powerful of all manures, night-soil, without which last, China would not support, by a number of millions, as many souls as now find plenty and happiness under the auspices of a wise and benignant government; but our vulgar, barbarian prejudices, cause us to look upon it as a nuisance. In Pekin, Nankin, &c. it is mixed with lime fashioned into cakes, and exposed on the shambles for sale to the country people.

I have often thought that the relation of what one has done in the pursuit of one's profession, is worth a volume of theory. To relate actual experiments, I conceive to be the best way of conveying information to the great mass of readers.

In the fall of 1824, I fenced in about an acre of land for a garden, after cutting the timber off it.—It was manured and well broken up. In the spring it was harrowed, cross-harrowed, and sown with some garden seeds. The crop was poor, as might be expected from such rough preparation. I had often heard of trenching a garden, and knew that Mr. McMahon, late of Philadelphia, seedsman, had trenched his garden two feet deep. When I saw it some fifteen years ago, it was astonishingly productive. William Cobbett, in his excellent book on gardening, recommends the practice strongly. I determined to make the trial, and if the success justified the expense, to trench my whole garden.

In the fall of 1825, the garden was manured heavily with a vegetable substance, taken from a cranberry swamp, (Mr. Eustis' *Ash Pocosin*,) mixed with lime, ashes and barn-yard manure. A bed of four square rods was marked out, and two men, each with a grubbing hoe and shovel, began to dig a trench two feet wide and two feet deep. When this was dug, they began another trench of the same width, the earth of which was thrown into the first dug trench, the top soil, lime, ashes and all, into the bottom, and the bottom soil on the top. This work was continued till the bed was trenched, and it was a matter of great labour.

Dung was hauled on the top, spaded in, and in the spring parsnips were sown in drills, and radishes between the parsnips. The radishes vegetated weakly; the greater part died by reason of frost or other causes. The few that survived were very small and ligneous, and totally unfit to eat. Very few of the parsnips came up, and supposing the frost had destroyed them in the seed leaf, I resowed them. About the middle of June, found the prospect of a crop desperate, and having some beet plants, set them out in the vacant spaces. These flourished well, some of them attaining the weight of four or five pounds. The parsnips were good for nothing.

In the spring of 1827, this bed was again manured, dug well with the spade, and sown in parsnips. They were well worked during the summer, and harvested the middle of November; a poor crop, had straggling of roots. A carrot, the seed of which had no doubt been deposited by accident, came up in the bed and was dressed with the parsnips. It attained an unusually large size and was very finely formed.

A vintner of the neighbourhood, who trenched his vineyard as I did my parsnip bed, sowed carrot seed on the fresh earth, which was a slate gravel, and the crop was large and very fine.

It appears from this that beets and carrots thrive well on land which has been deeply moved, though the subsoil contains but little vegetable matter, while parsnips and radishes decline and die. It is a fair inference that deep ploughing is beneficial to some vegetables and injurious to others; that the surface of the earth must be made to contain the nutriment of plants before the seed is deposited, or the plant will not arrive at its greatest excellence; that plants absorb a portion of their food by the agency of the foliage; and that the radicula is a co-agent in the work; that the larger the leaves, the greater is the absorption from the atmosphere, and the less will it exhaust the soil. Hence beets and cabbage are not as great exhausters as oats.

Tobacco, however, is said to be a great exhauster, and no doubt is so. But tobacco returns nothing to the soil; nine-tenths of the plant is shipped to other countries. But if cabbage or beets are fed to cows on the land, as much fertilizing matter is deposited as will compensate for exhaustion by their culture, and I believe much more, because the nutritious gas attracted by the plant from the atmosphere is concentrated there, and will serve in reproduction, if not suffered to escape.

In August last, I placed some manure from the hog pen round some beets. Their tops soon exhibited the effects of the application, flourishing beyond expectation. What the result would have been, I was prevented from observing, by reason of one of the domestics, seeing the tops remarkably luxuriant, pulling them for the cows. From the moment of this operation the plant ceased to thrive.

T. B. M.

THE BEE MILLER.

The following method of destroying a very pernicious insect has been recommended, and is at least worth the trial. To a pint of sweetened water (sweetened with sugar or honey) add half a gill of vinegar; set this in an open vessel on the top of the hive, and at night, when the miller comes to his work of destruction, he will prefer this composition, and, diving into it, immediately drown.

HORTICULTURE.

ON TRANSPLANTING TREES.

Mr. Editor,

A very imperfect notice, in some of the papers, of a new method of transplanting, lately suggested in England, has drawn down upon that method unmerited censure. Among other persons, one of your correspondents (from Lancaster county, I believe,) has animadverted on it severely, and, if the system had been what he understood it to be, justly. His observations are perfectly correct, throughout; and yet the new mode of transplanting is a most valuable discovery, and founded upon reason. It is my present purpose to describe and vindicate it.

What I shall say will be taken almost altogether from an article in the 74th number of the London Quarterly Review, supposed to be written by Sir Walter Scott; of which the subject is a book by Sir Henry Steuart, entitled "*The Planter's Guide; or, a Practical Essay on the best method of giving immediate effect to wood, by the removal of large trees and underwood; being an attempt to place the art on fixed principles, and to apply it to general purposes, useful and ornamental.*"

Sir Henry Steuart, it seems, is the proprietor of "Allanton," (I quote from the Review,) "an ancient possession of this branch of the house of Steuart, which had not originally much to recommend it to the owner, except its recollections. Situated in the county of Lanark, it is removed from the vale of the Clyde, which presents such beautiful scenery to the eye of the traveller. The soil is moorish, and the view from the front of the house must, before it was clothed with wood, have consisted in irregular swells and slopes, presenting certainly no striking features either of grandeur or beauty—probably just not ugly." The fame of Sir Henry's improvements having gone abroad, a committee of gentlemen[*] "supposed to be well acquainted with country matters, and particularly with the management of plantations," were deputed by the Scottish Highland Society, and visited the place in September, 1823. The committee found birch, ash, Scotch elm, sycamore, lime, and horse chestnut trees, which had been, at one time or other, transplanted, "growing with vigour and luxuriance, in the most exposed situations." "The trees were of various sizes. Some which had been transplanted some years since, were from 30 to 40 feet high, or more. The girth of the largest was from 5 feet 3 inches to 5 feet 8 inches, at a foot and a half from the ground. Other trees, which had been only six months transplanted, were from 20 to 30 feet high; and the gentlemen of the committee ascertained their girth to be about two feet and an half, or three feet, at eighteen inches above the ground."

The committee were particularly struck with a *wood*, which Sir Henry had created. Though it was but *five years* since this copse had been formed, "his visitors assigned no less a space than from 30 to 40 years as the probable time in which such a screen could have been formed by ordinary means. From the facts which they witnessed, the committee reported it as their unanimous opinion, *that the art of transplantation, as practised by Sir Henry Steuart, is calculated to accelerate, in an extraordinary degree, the power of raising wood, whether for beauty or shelter.* They added that of all the trees they examined, one alone seemed to have failed; and that, being particularly intent on this point of inquiry, they had looked closely for symptoms of any dead tree having been removed, without being able to discover any such, although the traces of such a process could not have escaped their notice had they existed."

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[*] Lord Belthaven, Sir Archibald Campbell, Sir Walter Scott, Lord Corehous, and Alexander Young, Esq.

According to Sir Henry's general statement, the size of the tree to be subjected to the process of transplantation, is a mere question of expense. "A large tree may be removed with the same certainty of success as a lesser one; but it requires engines of greater power, a more numerous force of labourers, and the expense is found to increase in a rapidly progressive ratio." In his practice at Allanton, he considers a tree of six or eight inches in diameter, or two feet in girth, as the *least* size fit to encounter the elements. "If planted out singly, eighteen inches and two feet in diameter are among the largest specimens, and plants of about a *foot* in diameter may be considered as a medium size, being both manageable and of size enough to produce immediate effect upon the landscape, and to oppose resistance to the storm."

To prepare a tree for transplantation, especially if the roots be scanty and deficient, Sir Henry sometimes causes it "to be cut round with a trench thirty inches deep, leaving only two or three strong roots uncut, to act as stays against the wind. The earth is then returned into the trench, and when taken up at the end of two or three years, with the purpose of final removal, it will be found that the roots have formed, at the points where they were severed, numbers of tassels (so to speak,) composed of slender fibres, which must be taken the greatest care of at the time of removal, and will be found completely to supply the original deficiency of roots.

The "Allantonian process of removing and replanting the tree," is the following:

"The tree is loosened in the ground by a set of labourers, named pickmen, who, with instruments made for the purpose, first ascertain with accuracy how far the roots of the subject extend. This is easily known when the subject has been cut round, as the trench marks the line where the roots have been amputated. If the tree has not sustained this previous operation, the extent of the roots will be found to correspond with that of the branches.—The *pickers* then proceed to bare the roots from the earth with the utmost attention not to injure them." "The roots are then extricated from the soil. A mass of earth is left to form a ball close to the stem itself, and it is recommended to suffer two or three feet of the original sward to adhere to it. The machine is next brought up to the stem of the tree with great caution. This is the engine devised by Browne, and considerably improved by Sir Henry Steuart. It is of three sizes, that being used which is best adapted to the size of the tree, and is drawn by one, or, at most, two horses. It consists of a strong pole, mounted upon two high wheels. It is run up to the tree, and the pole, strongly secured to the tree while both are in a perpendicular posture, is brought down to a horizontal position, and in descending in obedience to the purchase, operates as a lever, which, aided by the exertions of the pickmen, rends the tree out of the soil. The tree is so laid upon the machine as to balance the roots against the branches, and it is wonderful how slight an effort is necessary to pull the engine when this equilibrium is preserved. To keep the balance just, one man, or two, are placed aloft among the branches of the tree, where they shift their places, like a sort of moveable ballast, until the just distribution of the weight is ascertained. The roots, as well as the branches, are tied up during the transportation of the tree, it being of the last consequence that neither should be torn or defaced by dragging on the ground or interfering with the wheels. The mass, when put in motion, is manœuvred something like a piece of artillery, by a steersman at the further end. It requires a certain nicety of steerage, and the whole process has its risks, as may appear from a very good story told by Sir Henry, p. 232."

I have made this long quotation, that your readers may understand the process; but I will not trespass on the narrow space of your columns with the *philosophy* of Sir Henry's plan, nor by describing the subsequent planting, watering, &c. which must be obvious to every one who has had any experience.

Let us come to the expense. Sir Henry informs us, that the largest trees he has been in the habit of removing, "being from 25 to 35 feet high, may be managed, by expert and experienced workmen, for from 10 shillings to 13 shillings each, (from $2.25 to $3.00) at half a mile's distance; and the smallest being from 18 to 25 feet, for 6 to 8 shillings," (from $1 50 to $2.00)

From these statements you will perceive, sir, that your correspondent's remarks are perfectly correct as applied generally to this country, but that Sir Henry Steuart's process of transplantation has been pronounced by competent judges, and manifestly is, a most valuable one for such a country as England. In the United States we seldom have occasion to wish to transport a wood from one place to another, and we are reasonably content with awaiting, where we undertake a plantation, the growth of small trees into larger ones. But there are many even here, in which Sir H. Steuart's method may, and no doubt will, be pursued to great effect. No matter how small a tree may be, it is always better, as far as the welfare of the tree is concerned, to preserve its roots entire, than to mutilate them; and the less the roots are injured or diminished, the less trimming will be necessary of the branches. To remove a tree without curtailing its roots materially, is assuredly more expensive than to dig it up, and chop off its roots within a foot of the stem, with a pick axe, as you see many persons do; and to remove a large tree carefully, is assuredly more troublesome and expensive, than to remove a small one in the same manner. But the expense is, after all, not very great, as we have seen; and there are many persons too impatient to wait, too active to be deterred by difficulty, or too rich to regard the cost, who will have reason to rejoice that a noble tree of two feet in diameter and forty feet tall, can be transplanted by any process whatsoever. I do not say that *I* shall adopt this process; but I say that there are many who can and will. On a much smaller scale, and without the use of the engine spoken of by Sir Henry Steuart, I have practised the same method with complete success; and I am of opinion, that even where we do diminish the roots of the transplanted tree, it is better not to shorten the branches, unless the roots be very much curtailed indeed. I doubt whether the relation between the roots and the branches be so accurately poised, that every, even the slightest retrenchment of the former calls for a proportional reduction in the latter. Last November, I transplanted many trees, some of considerable size, and I acted with success upon these principles. Among the rest, I transplanted from about half a mile's distance, with a cart and one horse, a white or Weighmouth pine, 15 or 20 feet high and 6 inches in diameter at 2 feet above the ground, without shortening or taking off a single twig or leaf; and although much of its roots must have been left where it originally stood, it has grown, in every limb, from 12 to 18 inches, and is as flourishing as any tree on my place. I am always careful that as much of the root should be preserved as can be without a great deal of trouble; but I have remarked that those trees (for there were some,) that were headed or trimmed, are less vigourous and thriving than those that were not. This is a strong instance, for evergreens are much more impatient of removal, than deciduous trees.

I think it may be said, in general, that although Sir Henry Steuart's method may not, for a long time at least, be commonly adopted in this country, yet, that whoever, either here or elsewhere, shall have occasion to resort to it, will find it a most valuable means of rural improvement. It might be made particularly useful in our cities. And I think it may also be said, that the principles upon which it is founded may be advantageously obeyed in the transplantation of all trees, whether great or small, and whether they be to be removed in the ordinary way or by his process; for it is reasonable to suppose that the less the roots are lacerated and abused, the less injury or shock the tree itself will be found to have sustained, and the less necessary it will be to amputate any of its limbs. If this last operation must be performed, let it be accomplished in thinning out the head, by *entirely removing* certain branches, and not by *shortening* any of them. By this means the tree would be less disfigured.

An Amateur.

WINE.

M. de Saint Vincent has, after repeated trials, discovered that the enclosing of wine in bottles, by parchment, or a portion of common bladder, instead of corks, has the effect of rendering its flavour, in a few weeks, equal to that of the oldest wines, from such covering possessing the property of only allowing the aqueous exhalations to escape, but being wholly impenetrable to the spirit or body of the wine.

INTERNAL IMPROVEMENT.

THE FARMERS AND PLANTERS OF THE UNITED STATES.

Ornamental Decoration of Farms, &c.

They will pardon me when I assert, that there is no other class of men in the United States so little sensible of the dignity of their own character, or so unconscious of their elevated rank in society as the farmers and planters. Not because this great body of citizens are unequal to other classes in every quality that ought to distinguish man, but simply from a customary perpetuation of feudal ideas, are the cultivators of the soil themselves led to undervalue their own profession. Can all the combinations of nature and art produce another whole equal to a well conducted farm? I answer at once, they cannot. Can every exertion of the human intellect in any other situation in society, comprise so much of rational improvement, and social happiness as can be cheaply and securely united in a well educated family on a farm? I fearlessly answer not.

Within the last five or six years, has the very frame of our social compact been shaken, if not actually fractured by debates, in and out of our legislative halls, whether the families of the United States farmers should be clothed with the produce of their own hands, or from the productions of Asiatic and European looms. With any adequate conception of the incalculable advantages of their situation, the farmers and planters would have silenced such debates in a moment, not by a tariff but by becoming, what their position in the community enable them to be, their own manufacturers.

Let not the reader be startled at the preceding postulate, it contains in its utmost latitude nothing of inapplicable theory, nothing of fanciful Utopian speculation, but it contains what may, and what has in partial instances been effected. There is, I am rejoiced to say, miniature pictures of farms scattered over the United States, such as the eye, and the heart can scan with undiminished delight. There are farms on which no dread of a change of markets deprive its inmates of their rest, and on which within and without, reigns the purest taste in moral and physical operations. One such an example I am again happy to say, is very seldom found as a lonely flower on a barren heath, but such examples it must be said with regret, have a far too limited influence, and in many instances, contrasts exist between contiguous estates which would seem incredible if not realized.

"What is the reason," once observed a very sensible man to me, on seeing two beautiful young quakers, brother and sister, passing along, "that the dress of these people, so simple, so elegant, and so universally admired, is not as universally adopted?" "What is the reason," I replied, "that, a company of fashionables at an assembly, bedecked in all the meretricious trappings, which distorted fancy can conceive, express an undivided admiration of some one person, amongst them, utterly unadorned?" "Because," replied my friend, "it is easier to feel the charm of simplicity, than to imitate what is really in the mind." "Then," replied I, "you have answered both our questions; but as we are on such a subject, let me request you to inform me if you can, and you will I know pardon the demand, why it is that you and many more of our neighbours do not imitate in your domestic concerns the simple and effectual management of the father of the two living pictures of moral beauty which we have just passed." My friend smiled and blushed, but turned the conversation on another subject. This incident, which was fact, has never been by me forgotten, though thirty years have passed since it occurred, and the two men, the one with whom I was conversing and he of whom we were speaking, have long since gone to their native earth. I mention the subject here, as it affords me the means of sketching a draught from nature of what a farm may be made, where apparent though unreal obstacles would appal ordinary minds.

In the wilds then of the west, amid primeval forests, as early as 1760, did Seth Emberton fix his abode. On the day he chose his earthly home on the Monongahela, the far best treasure, possessed by the young and vigorous Seth, was a wife also young and like her husband endowed with unbending moral courage. Some little, and but little wealth they had, it is true, but far less than had many of their neighbour emigrants. The forest was to be attacked, and it was attacked most successfully. Houses were to be built, and they were built, fields were to be cleared, and meadows, orchards and gardens planted, and an elegant house, surrounded with meadows, gardens and fields, soon appeared.

It was on this very farm that thirty years after its original opening, I imbibed those enthusiastic feelings which I have ever since indulged when any similar met my eye. It was a scene to which I again and again passed and repassed, and on which I many a time sojourned, and what may well excite astonishment, it was from the shelves of Seth Emberton, that I read Locke, Reid, Home, Lord Kaimes, Blair, Thompson, Milton, &c. Years before restrictive systems were made the subject of debates, as restrictive of any useful purpose, the true principles on which the economy of a farm should be founded were carried into actual operation on a theatre almost exposed to the knife of the savage.

The house and out houses as they existed in 1790, stood on a swelling eminence, the ground falling by a gentle declivity in every direction. Two branches met and formed a fine rivulet to the south amid a meadow which swept like one great carpet from the garden and orchard. The orchard where not a branch seemed to be unproductive or redundant, rose over a fine knoll to the eastward, whilst the garden, in which a tariff of exclusion had banished every useless herb, really smiled in culture from the western wall of the mansion. The Embertons seemed to have confined their preference of one colour to their own clothing, since every tint, which nature in the exuberance of her fancy had decked the flowery creation, bloomed in this extensive garden. But the fields themselves, the meadows, and orchards were gardens, if the minutest attention to elegance in design and untiring execution in cultivation constitutes a garden.

The barns and stables with an air of solid construction rose to the north of the dwelling, and, so placed as to convey the alluvion of the yard towards the meadows. The whole of this really splendid little domain of about one hundred acres, was enclosed by a fence through or over which no intruding or vagrant animal could pass. Here, and here only have I ever seen a pathway carried entirely round a farm. This pathway was the favorite walk of Seth Emberton, and many is the sunny evening which I have made one with him and his happy family round this boundary of independence and peace. They were, the fields, the meadows, the orchards, and the gardens, and the decorated walk around them, only the outworks, however, of the still more decorated mansion in the centre. Seth Emberton and his wife had received from nature minds which seemed to have instinctively regarded order as "Heaven's first law." Their education had been good, though not highly finished; their reading though not very extensive, well chosen. To those volumes I have mentioned, a tolerably general collection on literary, historical, and religious subjects, filled the reading desk of this excellent family, but like other intellectual beings in Emberton's house, the books were companions and teachers; and in this house was I first made to feel a truth, which time and experience has since completely verified, that is, that of all families, reading families are, every thing else being nearly the same, very much the cheapest and most orderly and happiest. I have not, however, introduced this sketch from reality, to exhibit the poetry or romance, but the real substantial prose of human life.

In the mansion of this obscure, and beyond his own vicinity unknown individual, was pursued that system, and that system alone, by which either single families, or single nations, can be ever independent. The spinning wheel and the loom, were as steadily in motion within doors, as were the plough, and other instruments of husbandry without. A progeny of five children, two sons and three daughters, were reared, if I might be permitted the phrase, in an atmosphere of industry, and clothed in the work of their own hands. Every hour of the day had its appropriate task, which as far as the elements would permit, was performed with a regularity which obviated every thing like hurry or confusion. Amongst other regulations in such routine, the hour of reading and of course bodily labour was most scrupulously observed. That hour was invariably from seven to eight in the evening. A valuable work was chosen and one of the family appointed reader, and at the stated period, in the clean, the neat, and elegant little parlour, the family, and their guests if any were present, sat down, and attentively listened, and at the close of the lecture, when no particular other duty intervened, another hour or half hour, was spent in conversation arising out of the subject read. Thus a fund of contemplative wealth was laid up in each mind for the ensuing day. The dawn of that day was the commencing moment of labour, if labour in the common meaning of the term could be said ever to be performed on Emberton's farm. To me the members of the family and their hirelings appeared to return from their respective employments as from an agreeable recreation; and such was the fact, it was not simply agreeable but delightful recreation. Though executed with emulous imitation of the periodic marks of time themselves, every individual task was easy. No marks of that distressing, that wretched weariness, which I have too often seen on a most miserably managed farm in the same neighbourhood, did I ever witness on that of Emberton. On the farm of Thomas Laycroft, all was severe labour, scarce a moment left to answer a civil inquiry concerning the road to the next house. "I am in a great hurry with my ploughing." "My hay is suffering in the meadow, and we are all hasting to get it in before the rain comes," and such similar expressions were almost the unvarying replies to every question put to honest Thomas, for honest he was, but ever in a hurry, because he commenced in a hurry. Thomas sold his grain at half price to pay for worn out luxuries, and beheld the sheriff at the end of the year, either coming down the lane in the direction from Uniontown, or dreaded every passing stranger to be the sheriff or his assistant.

Seth Emberton was never in a hurry, nor was such a phenomenon ever known on his farm as hurry. From the act of putting on their clothes in the morning to taking them off at night every act was there done, as if that act was all they had to perform. When benighted or weather driven, the sheriff like every other traveller found a safe welcome at Emberton's door. Selling almost daily, and buying perhaps twice or thrice in a year; and selling for a dollar and buying for six and a quarter cents, left Seth a full purse. "I have never made but one promise," said Seth on a particular occasion to his neighbour Laycroft, "which has not been fully performed, and that was a promise never to contract a single debt." "As much of the engagement as has come due," continued Seth, "has been punctually discharged, and when I am called hence I hope the whole will be found liquidated; I cannot therefore do for thee, friend Thomas, what I am under an obligation to do for no one, not even myself, but as thou art under no such obligation I will lend thee the money to pay thy debt." The observations were made; with such an expression of good will, they were without that disgusting appendix advice, but they were felt as such conduct ought to be felt, with heartfelt gratitude. Prudence and justice compelled Seth to secure himself and family by a mortgage, which in fact secured the Laycroft family a home, which without such interference was lost to them forever.

Seth Emberton, and Thomas Laycroft went as wide from each other on the first, as on the six following days of the week. The Laycrofts, in tawdry finery, spun and woven at Mechlin, Paris or Manchester, went to church; the Embertons went to meeting, neatness personified, clothed, linen excepted, out of webs spun and woven on the banks of Monongahela. On Monday morning, and every other morning of the week, the Laycrofts rose from their beds as if alarmed by a cry of fire, and went to bed—not to rest, but as if exhausted by anxiety and fatigue. The Embertons rose and went to rest, with all the calmness of conscious security. To every physical cause of misery in one family, and contentment in the other, was added, useful instruction in the one, and profound ignorance in that of its neighbour. On one farm order presided, on the other disorder reigned. Even round the outer enclosure of the Emberton farm, every bush or tree seemed a favorite plant; briars and bramble were not to be seen. In the fences not a paling broken or wanting. The very woodland partook of the same undeviating care. If a tree was felled, every branch was removed or consumed. No rotting trunks were seen nor useless pernicious underwood left standing. On the Laycroft farm, and there were too many as bad or worse, ruin seemed to have chosen every useful herb and structure for his prey—nature appeared to have herself sown weeds, and left the inmates of the house to reap the crop. On the Emberton farm unceasing labour seemed to have been bestowed on the whole, whilst every separate part evinced peculiar care; in that of Thomas Laycroft every spot which met the eye appeared to have been in an especial manner neglected; and yet as I knew them both, I can safely assert there was really double if not more hard labour bestowed or thrown away, on Laycroft's fields and meadows, than was found fully sufficient to make that of Seth Emberton a picture of physical, mental and moral elegance.

Let me ask the reader, if a farmer, to employ himself a moment on the inquiry, whether his little territory answers to that of an Emberton or a Laycroft. The names alone is all the fiction of this rude narrative, which I close with the assertion I am convinced is true; that it demands really less exertion, less manual labour, and less care to create such a painting as Seth Emberton's estate, than it does to struggle through a painful existence to produce the rubbish of such a chaotic daub as that of a Laycroft.

LADIES' DEPARTMENT.

INTEMPERANCE.

[For the following we are indebted to the Ladies' Magazine, conducted at Boston, with much ability and taste, by Mrs Sarah J. Hale.]

A queer subject to be discussed in a lady's magazine. But the existence of "female influence" has been so clearly demonstrated, its effects shown to be so extensive and important, that it now appears only necessary to determine the particular direction in which that influence would be most beneficial, and then persuade the women to exert their omnipotence, and we may soon hope to realize in our United States, those visions of perfection that were to distinguish the imaginary republic of Plato. That height of exaltation which our "Fourth of July" orators invariably point out as an easy stage in the national progress, will nevertheless be unattainable without a mighty effort—the effort to go right. The political prosperity of our country has been so rapid, that our citizens, if they have not quite forgotten, have sadly neglected the moral discipline which only can render secure and lasting the benefits of our free social system.

The worst of evils that could be inflicted on men, would be to enjoy the right to govern themselves without possessing a single acquirement or virtue requisite for self-government. Perhaps it may be urged such a case could not possibly occur, as men never are divested of every virtue.

There is—"and pity 'tis, 'tis true," one instance to the contrary, or one case in which virtue, talents and knowledge, if at times exhibited, are of no more efficiency to direct their possessor in the path of rectitude, than would be the lamps in a sepulchral vault to show the wanderer, lost 'mid storms and impenetrable darkness, the direction to his home. I allude to the confirmed drunkard. But drunkards do not, by our laws, forfeit their right of suffrage. They are a part, and not a *very small* part either, of the sovereign people, who claim to exercise the unalienable privilege of jurisdiction over this "fertile, broad, and independent land."

I disdain all intention of writing *politically*. What business has a lady's paper with politics? But still considerations allied with the prosperity, the fame, indeed, the very existence of our republic, will press on the mind of every person who reflects for a moment on the degradation of character, the prostration of intellect, the perversion of privileges that may, that certainly must follow, if our citizens do not reform. If they do not resolutely dash from their lips the

——————"baneful cup,
With many murmurs mix'd, whose pleasing poison,
The visage quite transforms of him that drinks,
And the inglorious likeness of a beast
Fixes instead, unmoulding reason mintage
Charactered in the face."

And now I come to the meaning and moral of my essay. The women are told, and affect to really believe that they possess a great and important influence over the opinions, fashions and taste of society, and consequently on the character and conduct of man.

Ladies, if you have this influence, exert it, and banish the demon of Intemperance from among us. Achieve that task, and female influence will never more be denied or derided. Here is a glorious theatre for the display of all feminine perfections; patience, prudence, perseverance—softness and energy, gentleness and fortitude; the firmness that yields not to example or entreaty, and the meekness that boasts not its own conquests; the high-souled purity that disdains alliance with vice, however fashionable, and the tenderness that weeps the victims of an insidious temptation; the hope that never despairs while there is a duty to be performed, and the faith that never wavers while there is a promise of God on which to rely. All these virtues are necessary for those who would be in earnest to accomplish a victory over the only enemy Americans need dread. Arms and physical courage are here of no avail—nor can reason be relied upon as a defence to those who most confidently boast its possession. Intemperance can only be conquered by the efforts of public opinion, and this opinion is guided materially by the feelings, taste and sentiments of the ladies. There is, therefore, resting on them a responsibility which I fear they do not sufficiently consider. Yet, if they think they exert that influence on society, which has been ascribed to them by some writers, and which I do not doubt, they must be aware that a great evil cannot for a long time predominate, without, at least, their connivance. If they do not participate, they do not sufficiently discountenance the practice. Silence is often as effectual an advocate in a cause as eloquence.

Women, as wives, mothers, sisters, daughters, in each and every character, you have an important duty to fulfil. Your influence is acknowledged when the laws of God are derided, and your words are heard by those who never listen to a sermon. But still, never forget that the sceptre of woman's power must be wielded by gentleness and in meekness—that the law from her lips must be spoken in the accents of kindness.

When the cords of love that bind the household band, are skilfully and delicately touched by a wife and mother, how sweetly is poured forth the rich music of affection! It is at such seasons that the soul of her husband or son will be plastic as clay in the hands of the potter to her influence. And then is the moment to urge her suit, to plead, advise, or reprove, as her heart and duty shall dictate.

But it must not be expected that the influence of woman, or indeed that any human art, (Chambers' medicine excepted,) can reclaim the confirmed sot. I do not counsel the wretched wife to abandon her drunken husband. Though she has probably suffered more exquisite misery in consequence of the intemperance of the man who vowed to protect her, than those martyrs who sealed, by a life of persecution and death of torture, the fidelity of their hearts to the true faith, yet she must not forsake her husband. No, let her watch over him, weep over him, pray for him—it is her lot. A bitter and terrible one, yet she must endure it.

But though women must not hope to remedy or restrain the current of intemperance when its channel has become fixed and impetuosity attained, yet they may prevent the insidious stream from gathering strength, if they are careful to watch and disperse the drops before they congregate and form "the spring of all these ills"—habit.

It is then on the rising generation that female influence will be most beneficially exerted. Mothers must watch, with Argus' eyes, over their children, and prevent, if possible, a relish for ardent spirits from being acquired. There is no middle course that can with safety be pursued. The motto of every one engaged in this arduous and important concern must be, "touch not, taste not, handle not."

There are mothers who permit their children to sip the pernicious draught; indeed there are some who will hold the poison, sweetened and rendered as delicious as possible, to the infant lips of their own offspring. These mothers may be considered as aiding to promote *drunkenness*. It is best to use plain language, because the meaning will then be understood, and *may* be applied, and induce a reformation. I have not alluded to those *respectable* females who are themselves habitually guilty of intemperance. I cannot, I will not believe there are such, notwithstanding the whispers of rumour have already been heard sufficiently loud to distinguish *names*.

What, a wife or mother sunk in the grossness of intoxication! If angels weep, it would be over such a scene—to behold thus fallen, degraded, lost, "heaven's last, best gift." Censor.

SPORTING OLIO.

(Items from late English Journals.)

HUNTING.

Extraordinary run.—Lord Kelburn's hounds met, at Christmas, at Milliken-goss-cover. The hounds had no sooner been thrown in, than two foxes were viewed; one stole away, and the other, an old dog fox, went off in great style; keenly pursued, he tried the earths in Milliken-woods; he then bent his course through the grass enclosures of Fennel-farm, by the park wall at Castlesemple, and crossed the River Calder near Lochwinnoch, when, after a run of nearly 17 miles, the gallant pack killed their fox in a grass field two miles on the other side of Ladyland.

PEDESTRIANISM.

A foot-race of near four miles for fifty guineas a side was run over Knavesmire, York, on Monday last, between Berry (the Lancashire Man,) and Clarkson (of Bradford, in Yorkshire.) The weather was very unfavourable; and in consequence of the late rains, the course was extremely heavy. Berry had before defeated Clarkson, near Bradford, in a race of nine miles, which was run in fifty minutes and some few seconds; and the odds were, therefore, at starting six to four on Lancashire with few takers. Both men went off, and kept together for a short distance, when Yorkshire got first, and kept the lead for the first three miles, and, indeed, until near the last half mile, when Lancashire shot out, and won a well contested race by about fifteen yards. The distance run was performed in twenty-one minutes and forty seconds.

LEVANTING.

A defaulter has been announced in the sporting world, whose operations have placed many of the knowing ones at the wrong side of the post. His betting on the Derby left him, on making up his book, 35,000*l.* in debt; he being unable or unwilling to pay up, left town on Saturday last, and was met in his travelling carriage on the Kent road by a friend, to whom he said he was off for Paris, in order to sell out of the French funds to make good his engagements—but he is gone to return no more. The consequences will be that many other persons will be obliged to compound or ask for time. The defaulter moved in the first rank of fashion.

DOGS—RATS.

To the Editor of "Life in London:"

Sir—Observing in your paper of last week a paragraph stating that 50*l.* was deposited at Cribb's, to be laid against my dog China drawing a badger in ten minutes, I called with a friend to cover it, but found it was "no go," and, probably, the offer was a mere bounce of *little Charley's*. Now, to stop this little gemman's *chaff*, I am ready to stake, when and where he shall appoint, and further, to bet him 50*l.* that his dog Billy does not kill a hundred rats, finding rats myself, in eight minutes.

Yours, &c. Frank Redmond.

ENGLISH MILLING.

[In England, men are as systematically trained for *milling*, (fighting in the ring,) by minute and careful regulation of their diet and exercise, as game cocks for the pit, or horses for the course. Some times they are obliged to reduce themselves so much, to come within the required weight, as to impair their strength. Thus we see that on a late occasion of a match made between "Dudley Downs and Jack Tisdale, on Thursday evening, at Frank Redmond's, (the Marquis of Granby in the borough) the deposit due in this match was posted. But the chief fears entertained by the friends of Dudley Downs, are with respect to his weight; he is bound to enter the ring 10 stone, and with not much more than two weeks to intervene before he fights. He now weighs 10 stone 6 lbs."

We mean not to disgust our readers with details of the pugilistic combats that fill up and give popularity and circulation to some of the English journals. The following items are selected from a string of hundreds of such notices that appear in "Bell's Life in London."]

Sir,—I beg to inform you, through the medium of your valuable sporting journal, that I can be backed against Reuben Marten, for the sum of one hundred pounds; in stating this sum, I hope it will meet his approval. I purposed, prior to the late fight, to have challenged the winner; having been defeated by Gas in a manner not so satisfactory to myself and friends, and having challenged Reuben Marten before the event, (and refused,) I trust no justifiable objections can be urged to enter into preliminaries. Your early insertion will oblige, sir,

Yours, respectfully,
Matt Robinson, *the Yorkshireman.*
Lower George Tap, Halifax, Oct. 24, 1827.

Sir,—I had intended, at the suggestion of my friends, to quit the prize-ring forever; but, on reflection, while yet young and vigourous, I think it would be disgraceful in me to lie on the shelf; so therefore, I beg leave to announce to all whom it may concern, that I am open to fight any man, for any sum, from two to five hundred pounds. I am not particular to my customer.

Yours, &c. Robert Baldwin.

Sir,—I beg to state that I am ready to fight Jack Adams, of Kentish-town, for 10*l.*, and will meet him on Thursday evening next, at the Britannia, Britannia-street, Gray's-Inn-road, and make a deposit.

Yours, &c. Ned Crafer.

Sir,—You will very much oblige me, if you will inform Charley Gibletts, in your next sporting journal, that I am ready to fight him for fifty pounds a-side in a month, and that my money is ready at Mr. Chapman's, the Marlborough's Head, Foxes-lane, Shadwell, where I shall be glad to meet him, or his friends, on Tuesday evening next, at eight, and stake ten, or twenty pounds a-side, to fight when and where he pleases.

Oct. 24, 1827. The Suffolk Champion.

Sir,—Permit me to inform John Shaw, of Leeds, that I will give him two yards in ten hops, for 100*l.*, and that I will agree to his proposition respecting the five jumps, both to choose two, and toss for the fifth, for one or two hundred pounds. I am ready to make both matches, to be decided half-way between Leeds and London. It must strike every honourable man, that it is unfair to expect me to give long odds to persons of whose powers I know nothing. It has been justly said that there never was a man born without his fellow, and there may be many as good, and better than,

Your humble servant, Wm. Jackson.

Sir,—I wish to inform Mr. John Goodman, of Birmingham, that I am ready to match myself to run him one hundred and twenty yards for 50*l.* or 100*l.*; and I will be at his *crib*, on Thursday next, to make a deposit, if he likes. Thos. Danks.

West Bromwich, Oct. 26.

MISCELLANEOUS.

THE PROMETHEUS.

A picture of the Sufferings of Prumetheus, painted by Salvator Rosa, and brought to this country from the gallery of the Marquess Gerini, of Florence, is now being exhibited in St. James' street.—The taste of this celebrated painter leading him at all times to the indulgence of a passion for the terrible and the sublime, no subject could be better calculated for the display of his peculiar powers. In the attempt to delineate the agonies of man, from the never-ending vengeance of the Immortal, he has left a vivid testimony of the grandeur of his conception in that department of the art which his genius had selected. The coveter of the power of Omnipotence, in forming man from clay—the unauthorised possessor of the celestial fire—is seen chained to the rocks of the Caucasus by adamantine bonds, while the vulture preys with unnatural voracity upon the liver of the eternally devoted victim of his thirst of blood. The position of Prometheus, under this appalling torture of body, is conceived with all the power of the highest genius, and executed with the utmost fidelity to our feeling of nature. The convulsive throes of his gigantic body are painfully visible to our senses, and the wide spread arms, the clenched hands, the swelled and starting muscles, although exhibiting all that man can conceive of pain, are yet so painted as to convey the impression not of life-extinguishing torture, but that of agony which is to endure for all time in the person of the sufferer, by the strength of supernatural power. The eye of the vulture seems, indeed, not to beam with the unnatural lustre and vivacity which indicates the gratification of a passion for a moment, but, on the contrary, to be fixed upon its object with that intenseness, and that never-ending appetite for its prey, which forms, by the will of the Celestial, the eternity of the punishment—while his claws, buried in the heart, and saturated with the blood of the sufferer, indicate the intensity of that voracity with which he has been inspired. We do not wish to transform our observations upon a fine specimen of the art into a lecture upon morality, but we might sum up all we have to say in the praise of this picture by observing, that if there be a worm that never dies, a fire that is never quenched, and a punishment never to reach a termination, the situation and appearance of this Prometheus conveys a forcible impression of the nature of the retribution which crime pays to the Almighty dispenser of justice. It is not perhaps quite consistent, after what we have said, to point out in this picture any paltry defects which do not detract from its general merits; but we cannot avoid observing, that to us, who know not the strength of immortal iron, the chains of Salvator Rosa seem very ill calculated to bind the frame of Prometheus. This, however, is, we repeat, but a trifling defect, which the imagination can overcome without difficulty. The picture on the whole, is one of the best of the recent importations, and we hope it may never be allowed to return to the Continent. Why it remained there so long, and when good pictures bore so high a price in this country, and why it is now offered for sale, when they have become comparatively so low, are questions we are unable to solve. It is sufficient for us to say that the picture is, we think, a real Salvator Rosa, and one of his best. There are several other paintings, by Gerard Douw, Danaletti, Gherardi and Gaspar Poussin, in this exhibition, but they display nothing remarkable in conception or colouring, unless that they convince us, by comparison with some of the many pictures now on view in the metropolis from the hands of our own countrymen, that England is fast approaching to the same excellence in painting as in every other branch of science and art.

[*London pa.*

FONTHILL.

The manufactory built on the beautiful lake in these celebrated grounds, by the late Mr. Farquhar and Mr. Mortimer, is now finished. Every improvement in machinery as applicable to the manufacture of superfine cloths, has been introduced; and the manufactory, as a whole, is now one of the most complete in the kingdom. The quantity of cloth manufactured is about from 40 to 50 ends per week, all the work of which, from the very first to the last process, is done on the spot, and employs, of men, women and children, no more than 200 persons, although, without the late improvements, it would have required 1000 hands. [*Eng. pa.*

[It is not stated in what the improvement consists. The application of steam had already given to one man the power of hundreds, and reduced them to the point of starvation, here we see that 200 do the work which had previously given bread to 1000. In this country, how many *horses* as well as men have been superseded by *steam!* How much the substitution of other power for horses has diminished the consumption of agricultural productions! How many wagons and horses will be done up by the steam power engines on the Baltimore and Ohio Rail Road? after all who can solve the problem, Whether these labour saving improvements benefit the mass of the people?]

RECIPES.

[☞ Much misery and inconvenience, and sometimes loss of life, results from the confusion which ensues upon the happening of accidents, the evil effects of which might be obviated if the proper remedies were generally known. Thus when persons are severely burned, either the most appropriate and effectual remedy is not known, or is forgotten in the midst of the confusion, and the violence of the sympathy amongst those who are present, and much unnecessary suffering results from the want of the proper remedies, or of sufficient self possession to apply them. There ought to be taught in every family a sort of medical catechism, as what, for instance, is to be done in case of a child's clothes taking fire, what in case of a bad scald; what in case of hemœrrhage of the lungs or the nose; what in case of being half drowned; what in case of the bite of a snake or the sting of bees, &c. and in every family the ingredients should be kept constantly at hand, sufficient at least for a single case. We shall give such recipes occasionally as appear most simple and best adapted to cases of most common occurrence, and if there should seem to be in them any thing erroneous, we will thank our medical readers, of whom there are many, who are likewise most intelligent farmers, to comment upon them. We must derive them chiefly from late authors in our library. Here follows a few from the Domestic Physician.]

APOPLEXY.

General blood letting should always be preferred in the first instance to local, and it should be continued until decided effects are perceptible on the system.

BLEEDING FROM THE NOSE.

In a very interesting case of this affection, communicated by the late Dr. James Kent Platt, to his friend, Professor J. B. Beck, of this city, and which threatened to terminate fatally, the affusion of cold water, by pailsful over the head and shoulders, proved almost immediately successful.

BURNS.

In cases of extensive injury from this cause, one of the most successful applications, hitherto resorted to, has been the oil of turpentine. In the action which occurred in 1815, between the U. S. frigate Guerriere and an Algerine frigate, nearly fifty men belonging to the former were severely burnt, by the explosion of one of the large guns. Some of these men were in a most pitiable condition, and suffered the most exquisite torments. They were taken down to the cockpit, and spirits of turpentine freely poured over their naked wounds. They all did well.

POISONS.

Dr. Paris lays down three indications to be fulfilled, whenever it is ascertained that a poisonous substance has found its way to the alimentary canal. These indications are,

First. The immediate ejectment of the poison from the body, by the operation of vomiting and purging.

Second. The decomposition of the remaining portion, and the adoption of measures best calculated to obviate its absorption.

Third. To anticipate the occurrence of the consecutive phenomena, and to combat them by an appropriate treatment.

Sometimes it becomes necessary to fulfil the second indication before the first, as in cases of acids and alkalies having been taken into the stomach. The first object here should, undoubtedly, be to neutralize them, and dilute them as soon as possible, and then to excite vomiting.

The vomits to be preferred, in general, are the sulphate of zinc or copper. They do not require much dilution for their action, a circumstance of great importance in cases of poisons which act by being absorbed. In the next place, they act expeditiously; a dose of fifteen grains of either of these substances producing almost instantaneous vomiting, without exciting the nausea characteristic of other emetics, and which occasions a state of the system highly favourable to absorption.

Opium.—In addition to the means recommended in the text, for the recovery of persons poisoned by opium, I am happy to mention one which has proved very efficacious in this country: it is the affusion of cold water upon the head and back. In Philadelphia, and in this city, it has proved successful in a number of instances; and in Kentucky it has lately been tried, and also found successful. One case was that of an infant aged only seven weeks. It had been in a deep sleep eight hours, was affected with violent convulsions, laborious breathing, and suspended deglutition. After continuing the affusion of cold water for fifteen minutes, all the symptoms were relieved. An emetic and cathartic completed the cure.

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 5, 1828.

☞THE PRICE OF LAND.—An impression seems to exist, the truth of which may be questioned, that lands are selling far below their value, and that the present state of things, in that respect, is a *forced* one; whereas, if we consider the almost countless millions of unoccupied acres of land in the country; the sparseness of population, compared with the extent of our territory; the vast abundance and the low price of all the products of the plough, it would seem that the present is the *natural* state of things, and that $30—40—50—60—70, and $80 an acre for land, was only the result of an extraordinary state of things, abroad and at home. And again, to estimate the real value of lands in the Atlantic states, we must constantly bear in mind that a great revolution has been achieved in the value of landed property, by the prodigious facilities which have been, and are constantly in a course of being established, for bringing all the products, even the most bulky of the new and fertile regions of the west, into competition and contact with the productions of the states that are washed by the tide waters. How is it possible, under these circumstances, for land to sell for any thing like former high prices, since, after all, the question must be put—*What per cent. will it yield?* Suppose a purchase of 500 acres at $10 per acre—the original purchase money is $5000; of the 500 it is probable that not more than one-fifth is in actual cultivation—in other words, yielding any interest, whilst the remaining 400 acres or 4000 dolls., are lying dead; so that the portion of 100 acres which is in a state of activity, may be said to have virtually cost $50 per acre; and it is quite probable that unless the purchaser manages better, and has more manure at command than usual, he would consult a truer economy by applying his labour to the culture of a still smaller sphere. As we have before suggested, landholders have not yet, by any means, realized the degree of economy which may, and must be practised in every department, and every minutiæ of living.

Let them not suppose that they alone are under this necessity; it may begin with them, but assuredly it will, in its course, reach every other calling and profession; for so immediate is the connection between all other pursuits with agriculture, which sustains them all, that they must as assuredly feel her depression, as that the extremities of the body must be paralyzed by a pressure on the brain.

After all, it is an enviable calling, if pursued with industry and rigid, honourable, fair economy. On this point we shall dwell more at large, when we have leisure. At present we cannot forbear to say, that one of the most grievous evils under which, not only the farmer, but the whole country labours, is the *excessive* price of education for his children. To this, too, we shall advert again.

☞We will thank our patrons in different parts of the Union, to give an account of the *sales of land.* It may be useful to record them occasionally. Six hundred acres were sold, the other day, within four miles of this city, on navigable water, near the Philadelphia turnpike, with a brick house and an abundance of wood and timber, for $4.50 per acre.

[☞ Not knowing how else to ascertain the fact, we are obliged to ask here of Mr. M'Call, to let us know his *post office.* Many are inquiring about his family spinners, and we would recommend him to place some for sale in some seaport town where they may be seen. They are inquired for chiefly in the southern states. In the meantime the parties know not where to address their letters, nor can we tell them.]

☞ A walk through our market this morning convinced us more than ever, of the culpable indolence of the people in this neighbourhood in regard to *fruit.* Peaches were selling at $1 50, and pears at $1 per peck. For large yellow peaches the price was *four cents each!* can this be ascribed to any thing but want of enterprise and care? Has any landholder within reach of market a right to complain of hard times if he can get even fifty cents per peck for peaches, to the growth of which both his soil and climate are congenial?

☞ NOT SO FAST!—In a late number of the John Bull, it is asserted that "the quickest steam passage on record was made last Saturday week by the General Steam Navigation Company's packet *Earl of Liverpool;* that vessel left the Tower stairs, London, at a quarter after six o'clock in the morning, and was at anchor at Ostend at a quarter before eight in the evening; having completed the run of 146 miles in thirteen hours and a quarter, being at the average rate of eleven miles an hour the whole way; among the passengers was Lord HEYTESBURY and suite."

There are boats of the Messrs. Stevens on the North River, which have made the run between New York and Albany 150 miles, repeatedly in less than eleven hours.

☞ A communication on Botts in Horses, in reply to an inquiry in No. 22, by a subscriber, will appear next week.

☞PRUSSIC ACID.—A Mr. Montgomery, convicted in England of passing counterfeit notes, lately destroyed himself in prison by taking a small quantity of Prussic acid. He was found stretched out on his bed with his eyes and mouth open. "Virulent as this poison really is, it is much less active when applied to the human system, than some experiments upon animals would seem to indicate. A single drop placed in the nostrils of a cat will cause almost instantaneous death; two or three drops thus applied have destroyed a full grown deer, and an instance is related of a bullock being destroyed by ten drops. In the human system, however, this acid is frequently given as a tonic medicine, in doses of two to five drops; and in a less quantity than twenty drops, instantaneous death would not be certain. Much, however, must depend upon the degree of nervous susceptibility. Some persons may, without inconvenience, swallow four or five drops, whilst others are severely affected by the mere smell. The effect of a sufficient dose to cause death is instantaneous. Before the person taking the poison has time to ascertain the nature of the sensation which it causes, he is dead. The poison seems to be carried at once to the heart and the brain through the nervous system, and the machine is stopped almost without the derangement of a muscle or the alteration of a look."

To preserve potatoes in a proper state for food (says an English paper,) for many years, it is only necessary to scald them, or subject them to a heated oven, for a few minutes. By doing this they will never sprout, and the farinaceous substance will keep good for many years, provided the cortical part be entire. They should be well dried after being scalded.

☞There is, says a late London paper, great probability of the steam coach which has been built by Messrs. Gurney & Co., answering the intended purpose. It was tried yesterday evening in the square of the Horse Barracks of the Regent's Park, and performed with great ease at the rate of from twelve to fourteen miles an hour. It is much improved in appearance, being now more light and elegant than when it was first exhibited.

☞Professor Brande, in one of his recent lectures at the Royal Institution of London, gave the following table of some esculent plants, roots, and grains; with a view of showing their relative proportions of soluble and nutritive matter:

One Thousand Parts.	Soluble or Nutritive Matter.	Starch	Gluten.	Saccharine Matter.
Wheat, ...	955	765	190	—
Barley, ...	922	790	60	70
Oats, ...	743	641	87	15
Peas, ...	574	501	35	22
Potatoes, . . .	250	178	35	12
Carrots, . . .	98	3	—	95
Swedish Turnips,	64	9	2	51
Common Turnips,	42	7	1	34
Cabbage, . . .	73	41	8	24

☞From the best authority, we have been favoured with information, that 4 hhds. red leafy tobacco, made by Mr. James Johnson, of Charles county, were sold in this market the week before last, at $8 and $10 per hundred, and amounted to $313.18.—It is believed to be the highest sale made of the same number of hogsheads, of any one crop in this market during the year.

(From the New York Mercantile Advertiser, Sept. 2.)

Latest from Europe.

Last evening arrived the packet ship George Canning, captain Allen, from Liverpool, bringing Liverpool papers of the 24th, and London papers of the 23d July.

The Russian army are proceeding on their march towards Constantinople, and the latest advices, which are brought down to the 2d of July, left them at the distance of little more than one hundred and fifty miles from that capital.

The British Parliament, it was expected, would be prorogued on Saturday, the 26th of July.

The *provincial intelligence*, as it is called, received at London, brings accounts of heavy rains which have fallen in different parts of the kingdom. Crops have been beaten down to the ground, rivers have overflowed their banks, bridges have been swept away, villages have been inundated, cattle have been drowned, and quantities of hay, large trees, sheep, gates and gate posts, have been carried off by the currents.

London, July 23.

The Sir William Jolliffe, steam packet, is arrived from Hamburgh, with papers to the 20th. They contain some important intelligence from Turkey. The army assembling at Adrianople is stated to be 100,000 strong. All Musselmen from 14 to 60 years of age, have been summoned to take up arms. The standard of Mahomet was to be immediately displayed.

The operations in Greece have not of late been of much importance.

Constantinople, June 25.

It is not the Grand Vizier, but his Kiaja Bey, who, with many Agas, is gone to Adrianople, in consequence of the passage of the Danube by the Russians. They lead the van of a great army, upwards of 100,000 men, the levy of the capital, at the head of which the Grand Vizier has placed himself.

Official news has been received from the Morea, of the failure of the negotiations set on foot through the Greek Bishops with the insurgents. The Greeks had rejected every proposal, and referred to the Convention of 6th July.

IMPROVEMENTS IN THE ART OF VACCINATION

The subscriber having obtained letters patent, under seal of the United States, which bear date 10th July, 1822, for certain improvements made by him in the art of vaccination, will dispose of his right to use the same: with the right also to use a spring vaccinator; wherewith the insertion of the vaccine matter may be always effected with mathematical correctness.

The rights to be disposed of embrace the subscriber's method of selecting the vaccine matter, by the scabs or crusts, in which it is contained: and of preserving the same, by keeping them envelloped or set in bees-wax: and, also, his method of ascertaining, by an examination of these crusts, whether the persons vaccinated may depend on their being secure from the small pox or not—there being no other way known, by which any practitioner can *so certainly* ascertain this fact.

By these improvements those who engage in the practice of vaccination may keep themselves always supplied with genuine matter; and they may, thereby also, detect and correct every imperfection or defect that is liable to occur in its application; and this as certainly without knowing, visiting or seeing the persons vaccinated, as by the most careful and constant attention, that can be paid to them.

Success in vaccination may be truly said to depend, chiefly, on the selection of the matter, or seed that is used. For if the operator is supplied with genuine matter, he can have no difficulty in planting or inserting it, with the instrument above mentioned: and when it is inserted, the practitioner has nothing to do with the vaccine process, but, *to let it alone.*

When the kine pock rises (which may be always looked for towards the end of the third day after the insertion of the matter) the greatest care ought to be taken, that it should not be rubbed, scratched, broken or bruised in any way: and further, that it should not be punctured or opened to take the matter from the arm as is often done by physicians, who thereby always interrupt the vaccine process and deprive those who are vaccinated, in a greater or less degree of the full benefit of this operation—hence, so much imperfect vaccination, and so much suffering from the *varioloid* after it; a disease that we have good reason to believe, can never affect any person, during life, after their vaccination has been once allowed to terminate, as it should, in a *perfect* scab.

The narrow limits of this notice will not admit of any explanation, at this time, of the principles on which these improvements in the art of vaccination are founded. But Congress, it is to be regretted, having been so far misled by a cruel trick* that was practised a few years since, (whereby the small pox was introduced into North Carolina,) as to repeal the act to encourage vaccination, the undersigned conceives it to be a duty, that he owes to himself as well as to the public, to guard his improvements above mentioned, as well as he can, against the abuses, to which it is probable they would be liable, if committed, without any restriction, into the hands of practitioners generally. He therefore advises all persons concerned not to make any up of these said improvements; or of the instrument recommended for the insertion of the vaccine matter, without first obtaining from him a right to do so: when he will fully and freely explain the principles on which they are founded.

Private individuals will be admitted to use these improvements in their own families for a fee of *ten* dollars: and physicians or others who engage in the practice of vaccination generally, for *fifty* dollars. No charge will be made against those who obtain these rights for any supplies of matter that will be furnished to them: but all others will be required to pay a fee of *five* dollars for each portion of genuine matter selected for them by the subscriber.

No letters will be received except those on which the postage is paid.

JAMES SMITH,

Late Agent of Vaccination for the U. S.

Vaccine Institution,
Baltimore, Sept. 4th, 1828.

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* A letter which contained a small portion of genuine vaccine matter put up on glass was stolen out of this institution, and a parcel of variolous scabs being substituted in lieu thereof, by those concerned in this trick, they were transmitted by mail to Dr. Ward of Tarboro' in N. C. who alledging the parcel to be "vaccine scabs," used them as such, and thus unwittingly introduced the small pox into his neighbourhood. Those however who may wish for more full information on this subject are referred to the several reports which have since been made thereon in Congress. In these reports the subscriber has been fully acquitted of all blame. J. S.

MULES FOR SALE.

The subscriber will sell seven head of valuable Mules, five of which are colts, broke to work this season, of a large size, and not mischievous. Persons wishing to purchase are referred to Mr. Jonathan W. Cragg, Eden street, Old Town, Baltimore, for a further description of them. WILLIAM WELSH,

Near Georgetown cross Roads, Kent Co. Md.

SHORT HORN BULL FOR SALE.

The subscriber offers for sale a yearling Durham Short Horn Bull. Particulars may be ascertained by addressing the subscriber at Hartsville, Buck's county, Pennsylvania. JAMES COX.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco. &c.; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36, Pratt-st. Baltimore.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 a 6.00—ordinary, 2.50 a 3.50—red, 3.50 a 4.50—fine red, 6.00 a 7.00—wrapping, 6.00 a 10.00—Ohio ordinary, 3.00 a 4.00—good red spangled, 6.00 a 8.00—yellow, 6.00 a 9.00—fine yellow, 10.00 a 20.00—Virginia, 2.50 a 8.00—Rapahannock 2.75 a 3.50 Kentucky, 3.00 a 5.00. Amount of Inspections the last week, 487 hhds. Maryland.

Floor—white wheat family, $6.00 a 7.00—superfine Howard-street, 5.12½ a 5.25; city mills, 5.00; Susquehanna, 5.00—Corn Meal, per bbl. 2.50—Grain, best red wheat, .90 a .95—best white wheat, 1.00 a 1.15—ordinary to good, .70 a .85--Corn, .32 a .34—Rye, .40—Oats, bush. .19 a .21—Beans, 1.25—Peas, .60 a .75—Clover seed, 4.25—Timothy, 1.50 a 2.25—Orchard Grass Seed, 2.25 a 3—Herd's 1 00 a 1.50—Lucerne 37½ a .50 pr. lb.—Barley, .60 a 62—Flaxseed, .75 a .80—Cotton, Va. .9 a .11—Lou. .13 a .14—Alabama, .11 a .12—Mississippi .10 a .13—North Carolina, .10 a .11—Georgia, .9 a .10½—Whiskey, hhds. 1st proof, 20½ a .21—bbls. .22½—Wool, common, unwashed, lb., .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 2.87½ a 3.00; No. 2, 2.25 a 2.50—Mackerel, No. 1, 6.25 a 6.50; No. 2, 6.00; No. 3, 3.50 a 3.75—Bacon, hams, Balt. cured, .10 a 11; do. E. Shore, .12½—hog round, cured, .8 a .9—Feathers, .26 a .28—Plaster Paris, cargo price per ton, $3.37½ a 3.50—ground, 1.25 bbl.

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Letter from N. Hammond, Esq. on the Washing of Banks, and means proposed to prevent it—Large Calves in New York—Inquiry on Highland Rice and the Indigo with which cotton is dyed red—Ploughing, its depth to be regulated by the nature of the soil and the crop to be raised—To Destroy the Bee Miller—Sir Henry Steuart's method of Transplanting Trees—Wine—Farmers and Planters of the United States, Ornamental Decoration of Farms, &c.—Intemperance, Influence of the Ladies to prevent—Hunting—Pedestrianism—High betting in England—Dogs and Rats—English Milling, with remarks—Painting, the Prometheus—Manufactory at Fonthill—Recipes, Apoplexy; Burns; Poisons—Editorial, on the Price of Lands, &c.—Late Foreign News—Advertisements—Prices Current of Country Produce.

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AGRICULTURE.

HAMILTON COUNTY AGRICULTURAL SOCIETY.

QUARTERLY MEETING.

Proceedings of a meeting of the Hamilton County Agricultural Society, held at the court-house in Cincinnati, on Saturday, the 1st of September, 1827.

Major M. W. Beatman, of the U. States' army, presented a sample of Mandan corn, with a communication relative thereto.

General Findlay presented some samples of a new species of wheat.

Mr. Reuben Reader deposited a draft and specification of his "newly invented Bullshare Plough," and it was ordered that the Curators examine and report their opinion thereon to the next meeting.

A resolution was passed, directing articles presented to the society, to be deposited with the Corresponding Secretary.

On motion of D. Gano, a Fair and Cattle Show appointed to be held on the 6th and 7th of June, 1828, and the Board of Agriculture directed to report rules and regulations therefor, to the next meeting.

The following new members were reported: J. W. Piatt, Abel Woolverton, Jonathan Garrad, Philip Turpin, Charles Fox, Jonathan Foreman, B. Drake, Isaac Marriot, Hugh Moore, D. K. Este, Robert T. Lytle, Adam Moore, Samuel Lewis, Patrick Smith, Enos Woodruff, Alexander Botkin, James W. Robinson, Nathaniel Wright, B. E. Bliss, P. S. Symmes, Samuel Findlay.

A resolution was passed directing the December meeting to be held at the court-house.

D. C. WALLACE,
Recording Sec'ry.

[J. C. Short, Esq., President of the Society, delivered an Address, from which we transfer with pleasure the following extracts of a practical nature, and, doubtless, well adapted to the region for which they were prepared.]

"The scarcity of fencing timber, which begins to be felt in some of the oldest settled parts of the county, and especially around the city, together with the larger portion of Hamilton, which is overflowed by the Ohio and the Miamies, requiring for such inundated ground, fences of a different construction from those on the uplands, are circumstances that appear to me, to force themselves on our view, and to render it desirable that among the first objects of the society's attention, we should take into consideration the materials of which our enclosures are to be made in a few years to come. Without enclosure, there can be no permanent improvement; and it requires a very little experience to feel that their erection and frequent repair, constitute the greatest drawback upon the farmer's profits. Hedging appears to be the natural resource of all *disforested* counties; and where the plant of which it is composed is handsome, must add surprisingly to the beauty of rural scenery. What shrubbery will thrive in hedges in our climate and soil remains to be decided; no experiment of long standing enough, having yet been made to ascertain the fact. We must be taught the lesson, however, some day, and would it not be prudent to begin to learn by degrees?—so that at the time we must necessarily attend to this business, we may go about it understandingly. Let us make a few rods of hedge as soon as possible, out of whatever different materials can be procured. I will enumerate some of these. The English hawthorn, so celebrated by poets and travellers, will certainly *grow* here; we have no less than eleven other species of hawthorn, peculiarly our own, and indigenous in different parts of the United States. Of these, the Parsley-leaf hawthorn, (*Cratægus Apiifolia,*) is said to be the best adapted for hedging. I know not whether this is the kind which I have observed in the neighbourhood of Springfield, on Mad river; but certainly there is a low-growing species there, not more than six or eight feet in height, admirably adapted to this purpose. The berry of this shrub is much smaller than common haws, and contains frequently but one, never more than two seeds. We have, moreover, two species of the formidable honey-locust; the fragrant crab apple; also, the wild plumb; cedar, sycamore, and willow; the two last better adapted, perhaps, than any of our native growths, for overflowed bottoms and wet grounds. Besides these, a variety of others, said to be suitable for hedges, if not natives of the immediate region round about us, could easily be procured. Where stone is abundant and timber scarce, perhaps the cheapest enclosure is the stone fence. But one objection (and that a serious one,) can be made to it, which is, that unless it is carried up to an unusual and expensive height, some of our back-woods stock, are not sufficiently civilized to be turned by it. A stone fence four feet two inches high, and two feet broad at the top, I know from experience, presents a disregarded barrier to the inroads of sheep, and is not much respected by some cattle. Perhaps a better fence for this country is made by fixing in the ground a row of double upright locust stakes, joined together at the top by a cap—building the foundation of stone two feet high between these stakes, and then filling them up to any desirable height with common rails. The advantages of this fence (which I have had to remain perfectly unmoved, under a depth of ten feet of water,) are, that it is as well suited as any other for overflowed grounds—it presents an obstacle to the progress of even a goat or a deer, and is as secure against hogs as if it were all of stone. The locust stakes will out-last three or four sets of rails; and when, finally, some century hence, the stakes rot off, there will then be the foundation of a stone fence laid for the proprietor, at that distant period, to finish. These observations, however, only apply to those districts where timber is scarce. In newly settled parts of the country, the common worm-fence will continue to be seen for many years. In conclusion of what I have to say on the subject of enclosure, I beg leave to recommend to your attention the early plantation of nurseries of our best forest trees. These should, in all cases where the seed can be procured, be raised from the seed, and managed, in almost every instance, just as our common apple and peach tree nurseries are.

"If to any one not accustomed to this business, it should appear a labour altogether for the benefit of generations yet unborn, I only ask him to make the experiment on a small scale. He will be astonished at the rapid growth from the seed of our wild cherry tree, black and white walnuts; the different species of ash, mulberry, locust, chestnut, and catalpa, all durable and valuable for rail timber, building and ornamental purposes. The catalpa, with a wood when first cut as soft as the common buck-eye, is said to be as lasting as the locust. These plantations, when once they have taken root, grow, like interest, while we are asleep. Defended a little while from the attacks of animals, a few swift revolving and fugacious years, will present to the planter or his successor, a beautiful and useful grove. There is on every farm, some neglected corner, where a beginning can be made of seminaries of this kind. 'Our cleared lands are too much cleared; too bare of trees. The land suffers, the crop suffers, the stock suffers, in consequence. Plantation is wanted.'[*] This was said in Rhode Island; under the influence of a hotter sun, and perhaps more liable to drought, with superadded force may the observation be repeated here.

"It is perceptible to the most negligent observer, that a laudable attention is excited among the farmers of the Miami country generally, to an improvement in the breed of horses, to say nothing of other stock. In this marketless era and period of depression, nothing pays so well for the trouble and expense of rearing, as a good horse.

"A new object of culture, which is now presenting itself to the attention of American agriculturists, is the silk worm. From some experiments made on a small scale, during the last four years, I think I may safely say, that our climate is admirably adapted to this interesting animal. It remains only to be ascertained (and there is hardly a doubt on the subject,) whether the white or Italian mulberry will thrive here; and, if so, it requires, I should think, but little foresight to predict, that in twenty years, silk will be *exported* from the Miami country. Although this article, no doubt, can be raised in many parts of the extended continent of South America, yet we have every reason to believe, that the habits of people there, and the tropical productions of those regions, will cause the attention of these new nations to be turned to other objects.—While these very circumstances (of climate and fashion,) will make them consumers of silk to an incalculable amount, and thus offer to our industry, in this branch at least, a continual market. But in the first place, let the amount now paid for foreign silks, be saved to the United States, and here is an object worthy the attention of our lawgivers and of ourselves. I have now growing on my farm a nursery of the white, or Italian mulberry, containing at least 10,000 young trees. The seed was sowed this spring in drills, a great deal too thick; as it was a new business, I had no idea of the height to which they would arrive in one season. Cobbett speaks of eight inches as the summit to which a seedling tree may reach the first year. Some of my young mulberries, although thus badly managed, are now (September 1,) four feet and a half high, having to struggle for an existence in their very infancy, with two or three desperate attacks of weeds. It remains to be seen how they will stand the frosts of the ensuing winter; if they survive, *all is safe.* Do not think me visionary, when I say, that millions of dollars will be saved to 'the poor west' from the culture of this beautiful material.

"The vine, too, and all its delicious products, *may* be ours. To become acclimated, this should also be raised from the seed. We have made hitherto wretched progress in this department; we have gone on from year to year, sticking sickly cuttings in the earth of two or three varieties, brought from Europe or Africa a century ago, and which have been *pejorating* ever since. Why not from the best grapes we can procure, grow a vigorous seedling progeny at once, and of these again select the best? 'It is probable,' says that accomplished naturalist, Mr. Nuttall, 'that hybrids betwixt the European vine, and those of the United States, would better answer the variable climates of North America than the unacclimated vine of Europe. When a portion of the same industry shall have been bestowed upon the native vine of America, as that which has for so many ages and by so many nations been devoted to the amelioration of the European vine, we can then no longer imagine the citizens of the United States indebted to Europe for the luxury of wine. It is not, however, in the wilds of uncultivated nature, that we are to obtain vines worthy of cultivation. Were this the case, Europe would to the present, have known no other malus than the worthless and austere crab in place of the finest apple—no other pyrus than the acerb and inedible piraster or stone-pear, from which cultivation has obtained all the other varieties. *It is from seed that new and valuable varieties are invariably to be obtained.'*

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[*] Address to the Rhode Island Society for the Encouragement of Domestic Industry, Oct. 1822, by the Hon. Asher Robins, page 23.

"One only subject more, among the innumerable objects which present themselves as worthy of your notice, permit me to mention:—Can no remedy be devised against the evils which an intemperate use of ardent spirits is daily augmenting? These evils strike at the root of all prosperous husbandry, and form an "Iliad of woes" hideous of detail. Will not some of the very able physicians of Cincinnati inform us how far, if at all, the use of spirituous liquors is beneficial to the labourer? In the infancy of our vineyards, what substitutes can be made use of? What antidote to allay its poisonous effects? and, finally, if we must be drunken, how may the venom be extracted from these lethiferous cups, infused into them by Circean drugs and narcotic roots? You will not gentlemen, turn away from this good work, if the interests of agriculture agitate your thoughts—if the respectability of our vocation merits a regard,

> "Si te digna manet divini gloria ruris;"

or if, more than this, the welfare of your fellow beings can stimulate to action—the murderer's reeking blade, the widow's silent agony, or the orphan's unmurmuring wants.

GRASSES

Suited for Cultivation in the Southern States and elsewhere.

The frequent inquiries we (Sinclair & Moore,) receive on the subject of the culture of grasses, &c. have induced me to make a few remarks, founded on experience, for the information of our customers and other inquirers.

The common red clover is so well known, and the cultivation of it, that it may seem superfluous to include it in my observations, but as there are many yet unacquainted with its value, as an improver of the land adapted to its culture, I will make no further introduction. It grows well on all corn lands sowed on winter crops, oats or barley sowed in the spring, provided the native grasses have been destroyed by previous tillage. This grass is of so much consequence as an improver and meliorater, that it ought to be looked up to as the foundation and corner stone of systematic good farming, wherever the climate will admit of its culture. I am informed it often fails on upland in the lower Carolinas, and more southerly, in consequence of the summer heat and drought, when sowed in the winter and spring as we do here; which has been obviated in the southern parts of this state on sandy lands, by sowing the clover seeds in the fall late enough to avoid the heat, and early enough to afford the grass time to get a sufficient root in the ground to stand the winter's frost. If the object is to improve the land, it must be left on it to grow and fall there, it being the best improver of all plants; covers the land early, before the heat of the sun evaporates the nitrous salts, which will increase as the land is kept covered and mellow by the decomposing clover. We sow about six to eight quarts of seed to the acre.

Timothy, (meadow cat's-tail,) in New England, is called Herds'-grass, (*Phleum pratensis,*) has been one of the most popular grasses we cultivate for producing hay for feeding draft and other horses, is in the seed here about the 20th July, which is the time to cut it. This grass gives but little pasture, and the hay is not so good for other stock as herds' or orchard grass; is well suited to the southern states, on their moist or nearly dry bottom lands, near creeks and rivers, now in many cases grown up with brambles, bushes, &c., being considered too damp for the culture of corn, cotton, &c., which, if properly set with this grass, would produce two tons of hay to the acre. Grub out such lands during the winter and in the spring, and during the summer plough and harrow frequently, until completely fine and well pulverized; then, after the heat of summer has passed, and in time for the plants to get a good hold of the ground before the winter frost sets in, sow about six quarts of clean seed to the acre, and the next summer it will be in its prime. Great crops of this grass have been raised in some parts of South Carolina. (See the Report of the Committee of the Agricultural Society of Pendleton, in the 3d vol. p. 212, Am. Farmer, in which there are many valuable remarks on the culture of different grasses.)

Herds'-grass, or Red-top, thrives well on lands too wet for timothy, and makes a much better hay for horned cattle, being much finer and softer, producing a large crop. The manner of cultivation and seeding is the same as the timothy, except requiring more seed, say eight or ten quarts to the acre.

Tall Oat Grass, moadow oat, (*Avena elatior*)—this grass requires the same kind of land, preparation and time of sowing as timothy; will do on drier lands, and requires about two bushels of seed to the acre; grows as tall as wheat; should be mowed when in flower, which is about the 10th of June; is highly esteemed for its early and abundant pasture, which it affords during the winter; is the earliest of all grasses, and stands the heat best of any. For hay, it is the coarsest of any of the above grasses, which is the only objection to it.

Orchard Grass, or cock's-foot—This grass, after many years experience, is universally approved of for hay, and particularly for its abundant produce of early and late pasture; does not grow so tall as the above, but flowers about the same time, and for hay should be mowed then; requires from one and a half to two bushels of seed to the acre., Preparation, and kind of land, same as the above. The best way to sow all those seeds is as directed for timothy; yet they all may be sowed with grain in the fall or spring; but I prefer the fall; and red clover, if sown with them, will add fertility, whilst the other grasses exhaust the land.

Lucerne, is a species of clover, and like other tap-rooted grasses, is a great improver of land, but is much more delicate and slender, and consequently less able to contend with the weeds and grass so common in our lands. I have sowed this grass several ways, and at different times, broadcast, without succeeding as well as I expected, and am inclined to think it had best be sown in drill, and use a small cultivator and hoe between the drills about four times the first summer; after which the lucerne would have acquired a strength sufficient to require less cultivation, but the grass and weeds ought to be kept out of it; then I think it would give crops of lucerne and seed, that would more than double the clear profit of sowing broadcast. A deep sandy loam, made mellow twelve inches deep, by cultivation, suits best for this plant; but it will grow well on stiff land also. Sow the seed in drills about two and a half feet apart, as early as will suit to plant corn; or perhaps it would suit better to sow to the south in the fall, as recommended for the red clover. Four crops may be mowed of this plant in one season. To have an acre, or more, near the stables, for mowing, and to give to the stock green, especially for working horses and oxen, is very valuable. It requires fifteen to twenty pounds of seed to the acre.

ROB'T SINCLAIR.

WOOL REPORT

Before the committee of the British House of Commons.

Mr. George Webb Hall examined.

Where do you reside?

I reside at Sneed Park in the county of Gloucester.

How many sheep do you clip yearly?

At present my flock is about 400. I have in connection with my father shorn 3000.

Of what description?

Of the merino breed.

Have you sold your wool for the last three years?

I have been unable to sell my wool for the last three years.

Price of the Merino Wool per pound.

1811	Bought,	brook washed		4	0
1812	Bought,	do		4	0
do	Sold,	do	sorted R	6	6
do	do	unwashed	do	5	0
do	do	brook washed,	sorted F	5	6
do	do	do	sorted T	2	3
1813	do	R washed		5	9
do	do	F do		3	6
do	do	T do		1	9
1814	do	cross bred fleeces, brook washed		3	4
1816	do	unwashed fleeces		2	6
1817	do	do		2	0
1818	do	do		2	3
1819	do	do	sold in 1820		
1820	do	do		1	8
1821	do	do		1	6
1822	do	do		1	6
1823	do	do		1	8
1824	do	do		1	9
1825	unsaleable				
1826	do				
1827	do				

READINGS ON THE SEVENTH VOLUME, AMERICAN FARMER.

"A comparative view of the profit, &c. of various vegetables," p. 138, is as full of error as any article of its dimensions can well be. The first line of the estimate is—"1816. Justin Ely, Esq., West Springfield, raised wheat 50 bushels per acre; weight per bushel, 60 lbs.; pounds per acre, 3000. Nutritive matter on an acre, 2865 lbs. Cost of manure, $00! Labour, seed, &c. $00. Total cost, $12. Price per bushel, $1.50. Total worth, $75. Profit per acre, $62."

Our friends of New England must, indeed, be an economical race, if manure, labour, seed, &c., of an acre of wheat, that produces the extraordinary crop of 50 bushels, costs nothing.

In the first place, it must have been a *pet* piece of land; for the average of New England falls far short of 50 bushels. Indeed, every product stated in the estimate is unusually great. Indian corn, 128 bushels; potatoes, 614, &c. In *Bedford*, we think ourselves well paid for our labour if we get 20 bushels of corn, 15 of wheat, 15 rye, 20 of oats and 150 of potatoes. But let us suppose the acre under examination first rate; yet some manure must have been applied—say 12 four-horse loads, a very moderate manuring for such a yield. Dung must be worth something in New England. There are few farmers in the eastern part of Pennsylvania who would refuse to give $1 for a four-horse load, and haul it three or four miles into the bargain. I have known $2 a load given. Say then twelve loads, at $1 per load—you must have a wagon, four horses and two men, to haul, load and unload, and all will be very busy, and not have far to go if they haul eight loads a day—and a four-horse team and two men are certainly worth $3 per diem. The aggregate of this item must be much below the fact, and the writer of the article under consideration justifies the conclusion, for he says the manure of the corn cost $30, that of the potatoes $37, &c.

We of Pennsylvania generally plough three times for wheat. Say however, that Mr. Ely ploughed twice; and wheat ought not to grow for a man who refuses to plough twice. Nothing is more common in England than to plough four or five times for wheat. An acre is reckoned with us a day's work for a pair of stout horses and one man. We allow $1.25 per day for a plough team, the *engagee* finding himself and horses. Two ploughings would be $2.50. Sowing and twice harrowing, 41 cents.—

Young, in one of his tours, quotes ploughing at 5*l.* per acre. In England they frequently sow 2½ or 3 bushels to the acre. The average in Pennsylvania is 1¼ bushels. The price of Mr. Ely's wheat is $1.50—the seed of the acre, therefore, would cost $1.87½.

It is one of the seven impossibilities to harvest and mow an acre of fifty bushels of wheat for nothing. I have paid $1 25 per acre, and found wagon and team, for harvesting grain that did not produce eight bushels per acre: to suppose that fifty bushels is harvested for $2 is very moderate.

Grain cannot thresh itself, and many hard knocks must be given before fifty bushels are threshed, and threshers must be paid, or they will not work. In our county we give the tenth bushel, and find boarding and lodging. To thresh fifty bushels at 15 cents per bushel, is $7.50. In such fine grain, ten bushels may be threshed in a day—five days boarding, at 25 cents per day, $1.25.

After it is threshed and measured up, it must go to market. There is not one farmer in ten throughout the United States, who can load fifty bushels of wheat, take it to market, effect a sale, unload and return in less than a day. But I am willing to allow Mr. Ely the most favourable situation. Suppose he can make two trips a day: this is $1.50 for carriage.

We shall say nothing of the rent of this acre, nor of taxes, &c. lest we frighten Mr. E. out of his wheat growing propensities. We have reduced his profits pretty well already.

The account, then, of this acre of fifty bushels of wheat, stands thus—

12 loads of manure, at $1 per load,	$12 00
1½ days' hauling manure, at $3 per day,	4 50
Spreading do.	0 37½
2 days ploughing, at $1.25,	2 50
Sowing and twice harrowing,	0 41
1¼ bushels seed, at $1.50,	1 87½
Harvesting,	2 00
Threshing,	8 75
Transportation,	1 50
Total expenses,	$33 91
Fifty bushels wheat, at $1.50,	75 00
Nett profit,	$41 07

Even this result, reduced as it is to something like the truth, is an handsome profit, and very unexpected even to myself. Forty-one dollars clear profit on an acre, is farming to some purpose. One hundred acres would be $4100, and better interest for money than United States' stock. But with us of the mountains, whose average crop does not exceed eight bushels, and who get 62½ cents per bushel in *truck*, it behoves us to do all the work ourselves; to live upon ten florins in ten years; (as Machiavel says was the custom of the German farmers in his day.) to wear wooden shoes; two of us wear one coat, like Klyogg and his brother; and to eat the skins of our potatoes, and sell the balance.

It is a great error to suppose, because the farmer does the work of a farm himself, with the help of half a dozen sturdy sons, that therefore the labour costs nothing. If a man can earn $100 a year and his boarding, which cannot be estimated at less than $75, because he would have to pay that if he was idle; his labour is a capital of upwards of $2900, and the produce of his labour is the interest of that capital: but if he expends $35 for apparel annually, the interest is reduced to $140—which is the capital of $2333⅓.

The true way of calculating the profit of an acre, or of a thousand acres, is first to calculate the worth of the land; that is, how much will it sell for.

——————————"A thing
Is worth as much as it will bring."

The interest of this sum will be a legitimate item on the debit side. If you are a tenant, charge your rent. 2. The value of stock, farming tools, &c. 3. Taxes of every description. 4. Price of labour. In this item, you should calculate how much you would earn, if you were working for another; what your draft cattle would earn, and how much they consume while they are idle. 5. Annual repair of fences. 6. Do. buildings. 7. Wear and tear of gears, farming utensils, &c., and depreciation of draft cattle, which, if horses, will be important. Blacksmith's bill, wagon-maker's bill, shoe-maker's bill, &c. 8. Value of manure. 9. Price of seed; for every bushel sown might be sold, and therefore is another legal item on the horrible side.

Some individual has recently attempted, in New England, to ridicule such calculations; with how much propriety, let Young, Sinclair, and Owens answer. It is true, a man may stay on earth without getting into prison, even should the wrong side preponderate—but, *does he live?* Does he exist to enjoy the blessings God designed for the sagacious, the industrious and the temperate? I believe it impossible. When we *are not afraid* to sit down and deliberately calculate both sides of the account; when we have determined not to deceive ourselves; when we coolly and resolutely resolve to ascertain our annual income and annual expenditure; when we know that the former exceeds the latter; when we are absolutely certain that our crops pay every expense of culture, harvesting, &c., and leaves a balance in our hands after the family is provided for, to hoard up for the winter of age, to extend our business, or to give a decent outfit to our children—then, and not till then, is the farmer safe, is the farmer prosperous. But what sort of self-deception is this, which counts the profit of an acre of wheat at $62? *En passant*—as the total cost is $12, total worth $75, the profit would be $63.

Every item of this "comparative view," with the exception of corn, potatoes and onions, and they cannot be relied on, appears to be as palpably erroneous as that of wheat. Mangel wurtzel, for instance, is stated to have grown 74,518 lbs. per acre. In the first column, however, it is stated at 133 bushels per acre, which I presume is a typographical error. Taking the given weight of a bushel, 56 for the divisor, and 74,518, the number of pounds grown on an acre, as the dividend, the quotient will be 1152–4; which is the number of bushels on a single acre, and is certainly a great produce. The puzzle is, that this astonishing crop, which cost nothing for manure, nothing for labour, seed, &c., total cost nothing, price per bushel 11 cents, total worth $146, should produce *nothing profit!* This out-herods Herod, and sets all agricultural data at defiance. By the way, 1152 bushels at 11 cents, would produce only $126.72. This error in multiplication makes but little difference in the result—it is only an additional evidence of the inaccuracy with which the article is drawn up.

The whole article is a miserable proof of the unfitness of men to write upon subjects with which they are unacquainted. I do not mean that none but practical farmers should write on agricultural subjects; husbandry is greatly indebted to pens, the holders of which never held a plough. I only mean, before a man attempts to instruct others in an important science, he should *examine* his subject, and at least become master of the rudiments of it.

An article, so full of error, is well calculated to mislead the inexperienced. An agricultural tyro looking at the results: Wheat, per acre, $62 profit; onions, $105 profit; mangel wurtzel, cabbages, carrots, ruta bagas, &c. *nothing*—would pronounce him deranged who would attempt the latter, and himself would dash at the culture of wheat and onions, hip and thigh, tooth and toe nail. But let him pause! Wheat is an exhauster, and never yet in the United States yielded a clear profit of $62 per acre. Onions require the best of soils, and must be kept in garden-like order to produce *any thing*. The land must be prepared by frequent ploughings and harrowings, or else with the spade; and the after-tillage must be done exclusively with the hoe and knife. The labour is immense. The accuracy of the result is, therefore, questionable.

What is the actual value of the mangel wurtzel? 1152 bushels will feed and keep 4 cows, at 1¼ bushel per diem each, 230 days, and a fraction of four bushels. This is an ample allowance to keep them in good flesh and good milk. Or it will keep 20 hogs in good thriving order, at 1¼ bushels per diem, 115 days. There is, certainly, some profit in this, particularly if seed, labour, manure, &c., cost nothing. This root is an ameliorating crop; it occupies the land about five months, and its tillage is a good preparative for wheat or rye, or corn or oats. If the writer of the article will be so obliging as to initiate me into the art and mystery of raising 1152 bushels of mangel wurtzel per acre, without cost, I will soon set anti-tariff and Jackson men at defiance, and stock Baltimore with Improved Short Horns and full-blooded Parkinsons, at half their present cost.

Wheat occupies the land from September until July. Suppose you begin to break up for it the first of June, and mow the last shock the middle of July, every thing wearing a hoof is excluded from the land for thirteen months and an half. If fifty bushels of wheat be chopped for cattle food, and a half peck given to a cow per diem, with two bushels cut straw, it will keep four cows 100 days, which is as 1 to 2½ in favour of mangel wurtzel as a cattle food. If there are 2865 lbs. of nutritive matter in fifty bushels of wheat, and 10,134 lbs. in 1152 bushels of mangel wurtzel, the difference is much greater in favour of the latter.

"The American Farmer" is an agricultural chronicle, a book of reference. It is read in Europe, as well as with us. It records valuable facts. The French and British are able calculators, well versed in numericals. They know that figures, rightly managed, cannot lie, but may be made to convey false ideas when in the hands of bunglers. What would Arthur Young, the Marquis de Mirabeau, or our Lafayette say, were they told that our acre of wheat produced 50 bushels, and was sold at $1.50, gave a clear profit of $62, while an acre of mangel wurtzel, yielding 1152 bushels, which cost nothing for manure, seed and labour, produced no profit? Tell it not in Gath.

I have lately been put in possession of the 7th and 8th vols. of the American Farmer. The "comparative view" attracted my attention last evening. Its fallacy should have been exposed sooner.

Bedford, Pa. J. B. M.

IMPORTANCE OF KNOWLEDGE TO FARMERS.

1. The farmer ought to rise early, to see that others do so, and that both his example be followed, and his orders obeyed. 2. The whole farm should be regularly inspected, and not only every field examined, but every beast seen at least once a day. 3. In a considerable farm, it is of the utmost consequence to have hands specially appropriated for each of the most important departments of labour, for there is often a great loss of time, where persons are frequently changing their employments; and the work is not executed so well. 4. Every means should be thought of to diminish labour, or to increase its power. For instance, by proper arrangement five horses may do as much labour as six perform, according to the usual mode of employing them. 5. A farmer ought never to engage in a work, whether of ordinary practice, or intended improvement, except after the most careful inquiries; but when begun, he ought to proceed in it with much attention and perseverance, until he has given it a fair trial. 6. It is a main object in management, not to attempt too much, and never to be-

gin a work, without a probability of being able to finish it in due season. 7. Every farmer should have a book for inserting all those useful hints, which are so frequently occurring in conversation, in books, and gathered in the course of his reading, or in a practical management of his farm.

[*Sinclair.*

TO RAISE TURNIPS AMONG CORN.

Sow about one pint of turnip seed to the acre, on or about the 21st July, either before or after the last harrowing; top the corn as soon as ripe enough, and husk it as soon as the corn will admit; cut down and bear off the stalks, to let the sun upon the turnips, and the sweetness of the fodder will compensate for the labour. Take in the turnips about the middle of December. By pursuing these directions, corn of 10 bushels to the acre will produce 80 or 100 bushels of turnips at the same time; these for milch cows and sheep will be of particular importance.

[*Rural Visiter.*

HORTICULTURE.

KITCHEN GARDEN—SEPTEMBER.

In this month must be finished all the principal sowings and planting necessary this year, some for successional supply the present autumn and beginning of winter, others for general winter service; and some to stand the winter for next spring and summer. For this purpose, all vacant ground must be dug up, or occasionally manured, particularly if it is poor and designed for principal crops, and great care must be taken to destroy the weeds.

Give an autumn dressing to all aromatic plants, by cutting down decayed stalks or flower stems; clear the beds from weeds, and dig between such plants as will admit of it, or dig the alleys, and strew some of the earth over the beds.

Asparagus now requires only the large weeds cleared out till next month, when the stalks must be cut down, and the beds winter dressed.

Plant out more celery in trenches; and earth up all former planted crops, repeating it once a week. two, three, or four inches high or more. Plant out likewise full crops of the two last months sowing of coleworts, a foot distance, for winter and spring supply. Also endive for successional crops, in a dry warm situation, a foot distance.

You may begin to dig up horse-radish planted in the spring, but it will improve in its size by continuing longer in the ground, and will be in greater perfection next year at this time.

Gather seeds very carefully, according as they ripen, such as lettuce, leeks, onions, cauliflowers, radishes, &c. and spread them in the sun to dry and harden.

Hoe in dry weather with diligent attention, to destroy weeds between all crops, and on vacant ground wherever they appear, cutting them close to the bottom within the ground, and the large or seedy weeds rake off.

Potatoes will be advanced to tolerable perfection for taking up in larger supplies than heretofore; but not any general quantity for keeping, for they will continue improving in growth till the latter end of next month.

Plant various kinds of herbs by rooted plants, root off-sets, slips off, and parting the roots, as sorrel, burnet, tansy, sage, thyme, tarragon, savory, mint, penny-royal, fennel, camomile, &c.

(From the National Gazette.)

VINEYARDS OF FRANCE.

The proprietors of the vineyards in the department of the Gironde (France,) to the number of 12,562 subscribers, recently presented a memorial to the French legislature, with some interesting statistical facts. It appears that the vine is cultivated in seventy-two departments of France, over a space of 1,736,056 *hectares* (the hectare is equal to about two acres.) The annual product is estimated (in money) at a *milliard* (a thousand millions) of francs. The department of the Gironde contains 137,000 *hectares* of vineyard, yielding, net, 3,321,586 *hectolitres* of wine, valued at 63,161,928 francs. The expenses, in advance, for this culture, amount to eighty millions; and throughout the year it employs more than 200,000 individuals, nearly one-half of the whole population of the department. Without counting the coopers, the wagoners, carriers and sailors whom it contributes to support, it is supposed to occupy at least *two millions of laborers over the kingdom at large.* But this vast branch of industry, according to the memorial is suffering excessively from the high tariff system, which exclude the manufactures of the northern countries, particularly iron and linen. There is an extraordinary diminution in the quantity of the French wines now taken away by those countries, and some have imposed countervailing duties which amount nearly to prohibition. The history of the losses of the wine-growers, from the exclusion of foreign products, and domestic adulteration, chiefly caused by the taxes, is altogether signally curious and instructive.

The duties imposed by foreign states on French wines are stated to be as follows:

By Sweden, on every hhd. red or white wine,	400 francs.
Norway,	200
Prussia,	520
Russia,	750
England,	1200
United States,	189

Before the year 1789, one hundred thousand hogsheads of wine were annually exported from Bordeaux. Instead, however, of increasing, the petitioners in support of their complaints, state that since the year 1820 the annual exportation from Bordeaux has been only as follows:—

1820	61,110 hhds.
1821	63,244
1822	39,955
1823	51,529
1824	39,625
1825	46,314
1826	48,464
1827	54,492

They add, that the exportations of the last two years have been chiefly speculations, and not legitimate mercantile transactions.

SILK.

The imperial institute of Milan has awarded a prize to Silvestri, for a new treatise called *Arto Seropedia*, or directions for rearing up silk worms, and for extracting, spinning, and winding silk according to new methods. The treatise has been published.

It is gratifying to learn that all the experiments made in this section of our country, during the present season upon the rearing of the silk worms have been successful. As far as we have learnt, the worms were vigorous and healthy, eat freely of the leaves of the native mulberry, and produced silk of good quality.

In the possession of the corresponding secretary of the Hamilton County Agricultural Society, there are two cuts of raw silk, beautifully reeled and of an even and substantial thread. They were forwarded by Miss Lydia Hollingsworth of Xenia, by whom the worms were raised and this fine product brought into its present state. Her example is praise worthy and should be imitated. The supply of eggs in the Miami country, for the next season will be ample, and as the mulberry tree is abundant, it may be anticipated, that a sufficient quantity of the raw silk will be produced to make a variety of articles, such as stockings, gloves, vests, &c. It is computed that there are now growing within 50 miles of this city at least 200,000 white mulberry trees. This looks like making a fair experiment of the silk business, which, there is no doubt will be found less difficult and laborious, and more pleasant and profitable, than is generally supposed. Our farmers may make the most satisfactory experiments upon this subject, with but little trouble and expense, and without any material interference with the regular crops of their farms.

[*Cin. Sat. Ev. Chron.*

LADIES' DEPARTMENT.

(*From the Transactions of the Society for the Encouragement of Arts, &c.*)

On a Method of Cleaning Silk, Woollen, and Cotton Goods. By Mrs. Anne Morris.

Take raw potatoes, in the state they are taken out of the earth; wash them well; then rub them on a grater, over a vessel of clean water, to a fine pulp; pass the liquid through a coarse sieve, into another tub of clear water: let the mixture stand, till the fine white articles of the potatoes (the *fæcula*) are precipitated: then pour the *mucilaginous potato-liquor* from the fæcula, and preserve this liquor for use.

The article to be cleaned should be laid upon a linen cloth, on a table; and, having provided a clean sponge, dip it into the potato-liquor, and apply the sponge thus wet upon the article to be cleaned, and rub it well upon it, repeatedly, with fresh portions of the potato-liquor, till the dirt is perfectly loosened: then wash the article in clean water several times, to remove the loose dirt: it may afterwards be smoothed and dried.

Two middle-sized potatoes will be sufficient for a pint of water.

The white fæcula, which separates in making the mucilaginous liquor, will answer the purpose of *tapioca;* will make a useful nourishing food, with soup or milk, or serve to make starch and hair-powder.

The coarse pulp, which does not pass the sieve, is of great use in cleaning worsted or woollen curtains, tapestry, carpets, or other coarse goods.

The mucilaginous liquor of the potatoes will clean all sorts of silk, cotton, or woollen goods, without hurting the texture of the articles, or spoiling their colours.

It is also useful in cleaning oil-paintings, or furniture that is soiled.

Dirty painted wainscots may be cleaned, by wetting a sponge in the liquor, then dipping it into a little fine clean sand, and afterwards rubbing the wainscot therewith.

"THE FRAILTY OF BEAUTY."

——"Aye, Beauty's wreck
Is soon accomplished. Of created things,
Nothing was finished with a tool so nice
As the moth's wing. 'Tis covered with fine art.
'Tis clothed in features to the quickest eye
Hardly perceptible. Yet one slight touch
Defaces all. See woman's beauty flies,
Brush'd by the hand of sorrow or mischance,
Escapes it there. Age will not let it pass;
It falls a victim to the thefts of time;
And there is nothing permanent on earth,
But goodness. I have liv'd, Cecelia, long—
'Tis almost ten years since I saw four score.
Experience tells me Beauty is a shade,
And all the pride of youth a morning cloud.
Will you be taught to be forever fair,
Spite of old age and wrinkles? Then be good."

[*Sir John Moore.*

Spend to spare and spare to spend.

A lady of quality, a few days since, asked a physician of eminence here (Brighton), if she might not pursue the Calisthenic exercises with every prospect of eventual advantage? And to which the M. D with a smile replied, "If your ladyship would now and then condescend to assist your servants in shaking the beds, all the advantage you seek would be much more speedily and easily acquired."

SPORTING OLIO.

Maryland Association for the Improvement of the Breed of Horses.

The first annual races of the Association will take place over the Canton Course, on Wednesday, the 22d October next, and continue for three days, for the following purses, free for any horse, mare, or gelding, to be run for agreeably to the rules of the Association, viz:

1st Day—Colts' Purse, for three years old, one mile heats, ...	$150
2d Day—Three mile heats, ...	200
3d Day—Four mile heats, ...	400

Time of starting each day, 12 o'clock.

The horses must be entered with the Secretary, before 3 o'clock, P. M. of the day previous to the day on which they are to run.

By order, E. L. FINLEY, Sec'ry.

Connubial Tenderness.—A gentleman equally remarkable for the urbanity of his manners and the excellence of his fox hounds, was addressed one evening in the following manner by his huntsman:—"An please your honor, Sir," twirling his quid and cap with equal dexterity, "I should be glad to be excused going to-morrow to Woodford Wood, because as how, I should like to go and see my poor wife buried." "I am really sorry for thee, Tom," replied his master, "we can do very well without thee for one day; she was an excellent wife!" Notwithstanding, however, this kind permission, Tom was the first in the field on the following morning "Hey day!" said his master, "did I not give you leave to see the remains of your poor wife buried, and to pay the last tribute at her grave?" "Yes, your honour, you did, to be sure; but I thought as how, being a fine morning, we should have good sport of it, so I desired our Dick, the dog feeder, to see her *earthed!*" [*English pap.*

CURE FOR THE GRUBS, OR BOTTS, IN HORSES,

In answer to "Inquiries about Diseases of Horses.

Mr. Skinner,

An inquirer in your paper of August 15th, No. 22, is desirous to find out a remedy for the grubs in horses. He shall have the result of my experience, with great pleasure, regarding that truly dreadful disease of the noble and useful animal, the horse. I consider the free use of salt as a sovereign remedy for the grubs. I learned this from that industrious and useful class of citizens, the Dutch, or Germans. I had long known that they were in the habit of freely salting their horses, and the result was, that they never lost a horse with grubs; the use of salt not only kept them free from disease, but essentially contributed to keep them in fine condition, sleek and fat, as is well known to all who have observed the valuable work horses used by that class of our citizens.

I have for many years been constantly in the habit of salting my *blood stock* of horses with my *own hands*, three and four times a week, and frequently every day. To effect this the more conveniently, I always keep a small bag of salt convenient to them; and whenever I see them, which is rarely less than once a day, I throw a handful of salt to each head. The result of this attention, in the free use of salt, has been very gratifying; for my stock of blood horses, mares and colts, has always been remarkably healthy, disposed to thrive kindly, and I have never lost one by disease of any kind.

But the valuable use of salt does not stop in the prevention of the grubs. When a horse is really attacked with the grubs, I know no remedy so efficacious or sovereign in the cure as *fish brine*, which consists of the strongest kind of alum salt. I have frequently tried it, and never knew it to fail. I would therefore say to all who have horses, preserve your *fish brine*. It is prepared by beating fine the fish brine; take a double handful, put it in a quart of warm water to dissolve it quick, and drench the horse from a quart bottle.

If relief is not obtained in a half hour or three quarters, drench again with the same quantity. If fish brine is not at hand, fresh alum salt prepared in the same way, but using more, will answer the same good effects. The brine is supposed to act upon the pores of the body of the grub, and to *strike* into them, by which they are made to contract or draw up their bodies, and thereby let go their hold upon the coats of the stomach, or maw of the horse. Your "Inquirer" is referred to the first numbers of a series of essays written by me and published in the Farmer, for the best mode of rearing colts, and treating of mares; also to Mr. Brodnaxe's remarks, prefaced by me, and published in the Farmer a few months ago.

Author of "Annals of the Turf."

(Items from late English Journals.)

DEFENCE OF FLY FISHING.

The search after food is an instinct belonging to our nature; and from the savage, in his rudest and most primitive state, who destroys a piece of game, or a fish, with a club or spear, to man in the most cultivated state of society, who employs artifice, machinery, and the resources of various other animals to secure his object, the origin of the pleasure is similar, and its object the same; but that kind of it requiring most art may be said to characterize man, in his highest or intellectual state. The fisher for salmon and trout with the fly, employs not only machinery to assist his physical powers, but applies sagacity to conquer difficulties; and the pleasure derived from ingenious resources and devices, as well as from active pursuit, belongs to the amusement. Than, as to its philosophical tendency, it is a pursuit of moral discipline, requiring patience, forbearance and command of temper. As connected with natural science, it may be vaunted as demanding a knowledge of the habits of a considerable tribe of created beings, fishes, and the animals that they prey upon, and an acquaintance with the signs and tokens of the weather, and its changes, the nature of water, and of the atmosphere. As to its poetical relations, it carries us into the most wild and beautiful scenery of nature; among the mountain lakes, and the clear and lovely streams that gush from the higher ranges of elevated hills, or that make their way through the cavities of calcareous strata. How delightful in the early spring, after the dull and tedious time of winter, when the frosts disappear, and the sunshine warms the earth and waters, to wander forth by some clear stream, to see the leaf bursting from the purple bud, to scent the odours of the bank perfumed by the violet, and enamelled, as it were, with the primrose and the daisy; to wander upon the fresh turf below the shade of trees, whose bright blossoms are filled with the music of the bee; and on the surface of the water to view the gaudy flies sparkling like animated gems in the sunbeams, whilst the bright and beautiful trout is watching them from below; to hear the twittering of the water birds, who, alarmed at your approach, rapidly hide themselves beneath the flowers and leaves of the water lily; and, as the season advances, to find all these objects changed for others of the same kind, but better and brighter, till the swallow and the trout contend, as it were, for the gaudy May fly, and till, in pursuing your amusement in the calm and balmy evening, you are serenaded by the songs of the cheerful thrush and melodious nightingale, performing the offices of paternal love in thickets ornamented with the rose and woodbine.

WHITE BAIT.

Two Thames fishermen were charged yesterday before the Lord Mayor, with fishing in the Thames for white bait. Nelson said, he surprised a large party of fishermen in the act of fishing for white bait; but they all scampered off at his approach, with the exception of the defendants, who could not be so quick, on account of the heavy haul of fish of which they were robbing the river. Nelson produced the two trawl nets, which he had seized, and which were so closely worked as to be capable of securing the smallest fish that swims. The defendants said, that they must fish for white bait, or starve; for as to catching any other fish in the Thames, it was quite out of the question. The river had been poisoned by the refuse liquid of the gas companies, and the common sewers being also discharged into it. The Lord Mayor said, that it was for the purpose of restoring and preserving the various species of fish which used formerly to be found in the Thames, that he had issued orders to check the practice of fishing for white bait, and he had not even determined on this step until the fishermen had complained that their occupation was totally put an end to by the destruction of the young brood. Since he had issued this order, he had been tempted to partake of the white bait, by a dish of it being placed before him. He, however, resisted the temptation. The penalty for the offence is five pounds, with forfeiture of nets, which are worth about the same sum; but his Lordship remitted the penalty, and only forfeited the nets. It was stated, that white bait was most plentiful this year; and though the season is young, one of the principal taverns in Greenwich has already dished upwards of a million of the dainty fish.

PEDESTRIANISM.

Sheppard, the Yorkshire runner, attended at Lord's Cricket-ground on Monday, to perform his match of running ten miles within the hour, for a wager of 200*l*. The ground was in a very bad condition, in consequence of the rain, but the terms being "play or pay," no postponement could take place. He lost the match by one minute.

Yesterday week, a stranger in Wigan, between forty and fifty years of age, started about 5 o'clock in the afternoon, to walk one hundred miles in twenty-four hours. The ground he walked over is half a mile in length, between the Hall gate, down Frog-lane, and by the workhouse, and the road is hard, paved the whole of the distance. He accomplished his task in little more than half an hour short of the given time. [*Bolton Chronicle.*

On Saturday last, a man, for a wager made by some gentlemen, undertook to lift on his back, without assistance, two ordinary sacks of flour, and carry them the distance of 21 yards; with his teeth to carry 9 score weight of iron in a bag the distance of 7 yards, and to throw a 56 lb. weight 17 feet; the whole of which was accomplished with the greatest ease imaginable.

Pigeon Match for 1800 Sovereigns.

Yesterday being the last day of the grand match between the Hon. G. Anson and Mr. Osbaldeston, the ground was attended by a number of the nobility. The terms of the match were—two hundred double shots each, at eighteen yards distance—five traps, and five days shooting.

Hon. G. Anson.		*Mr. Osbaldeston.*	
First day,	40	First day,	46
Second day,	46	Second day,	51
Third day,	52	Third day,	44
Fourth day,	49	Fourth day,	48
Fifth day, (yesterday)	57	Fifth day (yesterday,)	48
	—		—
	244		237

Extraordinary Importation of Wild Animals.

There has been, within the last fortnight, the following great addition to the already large collection of living curiosities in the King's Menagerie, at the Tower of London, viz: two Lions, two Bengal Royal Tigers, one tortoiseshell Hyena, a Lynx, two fine Porcupines, a Silver Lion, one Secretary Bird, twelve enormous Boa Constrictor Serpents, and three Harlequin Snakes. By the above interesting addition to the former inmates of this great depot, it will be found that this exhibition stands unrivalled. Admittance to the whole, one shilling.

On the farm of Connychan, about two miles south west of Amulree, a wild cat of uncommon ferocity was last week caught in a trap. The animal measured 4½ feet from the head to the point of the tail.

MISCELLANEOUS.

(From late English papers.)

Remarkable Prophecy.—The ablest competitors on the prophecies of Daniel and St. John, among whom are Sir Isaac Newton, Bishop Newton, Doctor Zouch, Faher, Holmes, &c., though they differ occasionally in the interpretation of some of the prophetic symbols, yet all arrive at last at one and the same conclusion—namely, that the eastern or Mahomedan apostacy should last from its commencement 1260 years, and then its downfall and complete destruction commence. When Daniel wrote, the Jews and other nations reckoned only 360 days in the year, and the alteration in the calendar, making the year 365 days, did not take place till between 500 and 600 years afterwards. Consequently, Daniel must have meant 1260 years of 360 days each, inasmuch as he could have known no other. If this reasoning is correct, this year (Anno Domini 1828) is the prophecy complete: for the Turkish date for this year is 1243. Now tho Turks reckon their years of the same length as we do, 365 days. If then we reduce 1243 years, of 365 days each, into years of 360 days each, we shall find that the Mahomedan religion has this year lasted 1260 years, with 95 days over.

Land Crabs.—A statement lately made by Mr. Phillips respecting the land crabs of the Isle of France is such as almost to stagger belief. These creatures, he informs us, in their ordinary state of existence in the mountains of those countries, climb trees and prey on insects, and even on small birds. They live in society, and, at the time of depositing their eggs, march in millions strong—in a body fifty yards in breadth, and three miles in lengthened extent—marshalled in three divisions; they march by night, or during rain by day, and suffer no obstacles to overcome their perseverance; climbing over buildings and wading through rivers, and, if attacked, defending themselves fiercely, and clattering their pincers together to intimidate their enemies. The march continues for two or three months, when they arrive at the sea, and after having deposited their eggs, and undergone various vicissitudes, the remnant of the indefatigable colony returns to the mountains and woods, having been preceded in their journey by the young brood.

Education in Ireland.—The following Parliamentary grants have been at various times made for the purpose of promoting education in Ireland.—

Charter Schools . . .	l.1,105,869	0	0
Foundling Hospital . .	820,005	3	4
Association for Discountenancing Vice	101,991	18	6
Kildare-place Society . .	170,508	0	0
Lord Lieutenant's Fund . .	40,998	0	0
Maynooth College . . .	271,869	18	6
Belfast Institution . . .	4,155	0	0
Cork Institution . . .	43,710	0	0
Hibernian School . . .	240,356	1	6
Marine Society . . .	64,262	10	9
Female Orphan School . .	50,414	10	0

To Preserve Zoological Specimens from Insects.—Put rectified oil of turpentine into a bladder, the mouth of which is firmly tied with a waxed string, and nothing more is necessary than to place the bladder thus prepared in the box with the birds, or to tie it to the pedestal on which the birds are perched in a case. For large cases of birds, a pig's or a sheep's bladder is sufficient; for middle-sized cases, a lamb's or a rabbit's bladder will do; and for a small one, we may use a rat's bladder. The turpentine evidently penetrates through the bladder, as it fills the case with its strong smell. This method of preserving zoological specimens has been most successfully employed, to a great extent, in the museum in the University of Edinburgh.

The cruelty of collectors in tormenting insects is often a theme of reproach among those who are fond of raising objections. But it is not difficult to adduce numerous facts, proving that the converse of our great poet's conclusion,

> "The poor beetle that we tread upon,
> In corporeal sufferance feels a pang as great
> As when a giant dies,"

must be nearer the truth. A humble bee (Apis terrestris,) for example, will eat honey with greediness, although deprived of its abdomen, and an ant will walk when deprived of its head, neither of which a disembowelled or a decapitated giant could do. The cockchafer (Scarabæus Melolontha) will walk about with all indifference when its bowels have been scooped out by birds; and the dragon-fly or horse-stinger (Libellula) will eat insects which are offered to it, after it has been stuck upon a pin. Every boy is acquainted with the indifference shown by the various species of father-long-legs (tipulidæ) in abandoning their legs, as, after such accidents, the insects will fly about as agile and unconcerned as if nothing had happened. It is probable indeed, that acute pain, such as we ourselves are acquainted with, can only be felt by animals furnished with warm blood and with a brain and spinal cord; whereas insects have cold blood (if the term may be used at all,) and a ganglianic nervous system, consisting of a series of ganglians, analogous to little brains connected by nervous threads, and placed (except the first ganglian) below the intestines.—*Athenæum.*—[To say that insects do not feel pain, is, perhaps, exceeding the limits of truth; but many well-authenticated facts are related to bear out the assertion, that the degree of pain felt by some insects must be very small. One is exceedingly curious:—An eminent collector placed in a case a number of beetles, which were secured in the usual mode (a mode, by the way, which even the theory of non-susceptibility of pain from violence cannot sanction, as the pangs of starvation are inflicted,) viz. by thrusting a pin through the body of each. The collector went into the country, and on his return, a month afterwards, found, to his horror, that all his beetles, with one exception, were destroyed. This exception was one of the largest beetles, which had contrived to escape from the pin, and had subsisted upon the carcases of his less fortunate associates. The nervous system of insects appears to be essentially different from that of animals. Whilst a drop of prussic acid, placed in the eye of a rabbit, instantly destroys life—a common house-fly, on being dipped into the poison, is only affected for a time; after exhibiting for two or three hours the signs of death, it will gradually recover, and become as vigorous as ever.]

There exists in Livonia a very rare insect, which is not met with in more northern countries, and whose existence was for a long time considered doubtful. It is the *Furia Infernalis,* described by Linnæus in the *Noveaux Mémoires de l'Academie d'Upsal,* in Sweden. This insect is so small that it is very difficult to distinguish it by the naked eye. In warm weather it descends from the atmosphere upon the inhabitants, and its sting produces a swelling, which, unless a proper remedy is applied, proves mortal. During the hay harvest, other insects, named *Meggar,* occasion great injury both to men and beasts. They are of the size of a grain of sand. At sunset they appear in great numbers, descend in a perpendicular line, pierce the strongest linen, and cause an itching and pustules, which, if scratched, become dangerous. Cattle which breathe these insects are attacked with swellings in the throat, which destroy them, unless promptly relieved. They are cured by a fumigation from flax, which occasions a violent cough.

[*Brewster's Journal.*

It is said that the boa constrictor, in a state of confinement, will not eat any thing of itself, but requires it to be forced down its throat with a stick, and afterwards pressed forwards with the hands to some distance. David Scott, Esq., in a letter from India, says, "I kept one upwards of three weeks without food, and still he would not swallow a frog, although repeatedly put into his mouth."

Packing Seeds.—The smaller sorts of seeds may, in general, be kept in good paper bags, but the larger sorts ought to be placed between layers of very dry sand, or saw-dust, well dried in an oven, and the whole packed in air-tight boxes or barrels. Oleaginous seeds, such as those of the coffee-plant, the oak, nut-trees, the tea-tree, &c., require great care to keep them individually separate by the sand. —Seeds of a middle size may remain in their seed-pods, and be packed in small cups, or pots, by covers of glass, fixed on with putty, or wood, or cork, surrounded with melted pitch. Dr. Roxburgh was accustomed to coat the seeds which he sent home, from Coromandel, with a solution of gum arabic, which, on hardening, preserves the vegetating properties from external influence.

Gypsum, as a Manure.—As the seeds of beans and peas contain, *ab initio,* a portion of gypsum (sulphate of lime,) and have also a great tendency to absorb all that the soil can contain of it, gypsum ought not to be applied to the soil destined for the culture of such leguminous plants as are grown for the sake of their seeds. On the other hand, when these plants are destined to form a natural or artificial pasture, gypsum imparts to them such energy of vegetation, that it stimulates them constantly to put forth succulent leaves, and to renew, for a long time, the stalks which are cut for cattle.

A child was exhibited at Salisbury last week with two faces, four eyes, two mouths, two noses, and two chins, all in perfect nature.

The Laws and the Profits.—It was stated a few days since, that no less than 197 applications were made, by young men, this term, for admission to practice as attorneys in the different courts; but this is nothing compared to the *moderate* state of the profession of the law, as it appears by the *Law List*, a book exclusively devoted to the registering of practitioners in the different branches:—

Counsel	936
Special Pleaders below the Bar	49
Conveyancers . . .	90
London Attorneys . .	2,146
Country Attorneys . .	5,200
Total in the Profession .	8,421

A new machine of some importance to calico-printers, has been invented by a person in Stockport, after two years of patient and laborious investigation. It is a machine by which the most minute and delicate figure may be etched on a cylinder, superseding the tedious process now in use, and without the slightest possible deviation in the pattern, should there be even tens of thousands of objects to be engraved. [*Manchester Gaz.*

The author of the *Brussels Companion* gives the following comparative table of the expense of a good dinner for four persons, in London and Brussels:—In London, three pounds of beef-steaks, 3s. 6d.; potatoes, 2d.; pot of porter, pepper and salt, 6d.; bread, 2d.; cheese and butter, 4d.; coals for cooking, 4d.; total 5s.—Now, for the same number of persons, a dinner admirably cooked may be procured from a Restaurateur at Brussels, consisting of the following dishes:—A roast of veal (or beef, or mutton;) a broiled fowl, with mushroom sauce; a beef-steak, or mutton pie; and apple pudding, or fruit tart; a dish of stewed red cabbage, or mashed spinage, and plain potatoes; the above will cost 3 francs, 5¼ sous, or 38¼ sous. To which you may add—cheese, 2 sous; butter, 2 sous; four rolls, 2 sous; four French pears, 2 sous; one pound of grapes, 3 sous; a bottle of Bordeaux, 14 sous; porterage of dinner, 2 sous; mustard, salt, pepper, and vinegar, 2 liards, or ½ sous; total 66 sous, or 6 francs, or 5s. sterling.

The system of telegraphs has arrived at such perfection in the presidency of Bombay, that a communication may be made through a line of 500 miles in eight minutes.

A boat, on the principle of the steam vessels, plies between Lewes and Newhaven regularly, being propelled by paddles, with the assistance of two dogs in a tread-wheel, and a man at a winch. We understand several boats are about to be made on the same principle. [*Brighton Gazette.*

RECIPES.

CURE FOR THE FEVER AND AGUE.

A writer in the Charleston Mercury recommends the following prescription for the cure of the Ague:—Take a gill of very strong coffee mixed with an equal quantity of lime juice; the dose to be taken just before the fit of ague is expected. A single dose has cured an acquaintance of the writer, who had nearly forgotten it when he came across a review of "Dr. Pouqueville's Travels in the Morea," which contained the following paragraph:—

"I have often seen *intermitting fevers* subdued entirely by a mixture of *coffee* and *lemon juice*, which is the general remedy for them, all over the country. The proportions are three quarters of an ounce of coffee, ground very fine—two ounces of lemon juice, and three of water. The mixture to be drunk warm and fasting."

(From the American.)

CURE OF SUMMER COMPLAINT.

The following recipe was given to me by an aged lady, with a request that it should be made known to my acquaintance, as well as all others; and as I have experienced the good effects on my own children, I put great confidence in it.

Mash a tea spoonful of Alspice and make a tea, not over strong. Give the child a table spoonfull, sweetened with loaf sugar, every 2 hours, for 6 hours. Should this not have a good effect, repeat the dose after 6 hours interval, giving the child a soup made of the kidney fat of a good lamb or yearling mutton, boiled in new milk. Be careful that the tea and soup are not sour, from having been kept too long; to avoid this, fresh may be made each interval. A few times will produce a cure.

No person who knows the suffering of an innocent child, or the fatigue and privations as well as the feelings of a mother, in this dangerous malady, can hesitate a moment in giving any thing to relieve her child. A Parent.

A CERTAIN CURE FOR THE ITCH.

Take black pepper, ginger and brimstone, each of equal parts, a little West India rum, and a little hogslard, all well mixed as salve. Rub a little in your hands, hold them to the fire and smell them for a few moments, repeat it several times in the day and at night. Effectually tried by

Joseph Keaton.

TO PRESERVE APPLES.

Dry a glazed jar perfectly well, put a few pebbles in the bottom; fill the jar with apples, and cover it with a bit of wood made to fit exactly; and over that, put a little fresh mortar. The pebbles attract the damp of the apples. The mortar draws the air from the jar, and leaves the apples free from its pressure, which, together with the principle of putrefaction which the air contains, are the causes of decay. Apples, kept thus, have been found quite sound, fair and juicy, in July.

CURE FOR STAMMERING.

Those (a correspondent assures us) who suffer under the distressing affliction of an impediment in their speech, may be effectually cured—where there is no malformation in the organs of articulation—by a perseverance for three or four months in the simple process of reading aloud with the teeth closed, for at least two hours in the course of each day. The recommender of this simple remedy adds—"I can speak with certainty of the utility of the remedy."

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 12, 1828.

☞The Trustees of the Maryland Agricultural Society are requested to be punctual in their attendance, on Thursday next, the 18th, at Brookland Wood, the country residence of R. Caton, Esq. A full meeting is the more necessary, as the next Cattle Show and Exhibition will take place in less than a month after, to wit: on Thursday, the 16th day of next month.

☞The Committee appointed to fix a day for the next Cattle Show and Exhibition of implements of husbandry and household manufactures, to be held by the Maryland Agricultural Society for the Western Shore, have fixed on Thursday, the 16th of October. It will take place at Carroll's Point, a beautiful spot near the city, and well adapted to the purpose, where it was held last year; and for the convenience of those who come from a distance, the examinations will be made and the premiums awarded and delivered on the same day—so that the Show will last but one day, and gentlemen coming from the Eastern Shore on Wednesday, can return on Friday.

☞Failure of the Wheat Crop.—Extract to the Editor, from Cecil county, on the Sassafras river, 18th August, 1828: "My eighty to ninety-bushel stacks turn out 40, 54, 54, 48, 45, and the grain more than proportionably inferior; but it is all wheat, neither cheat, cockle, garlic or rye. We are extremely dry, not having any of the late abundant rain.

☞The excellence of Orchard grass, and its adaptation to the southern climate, will be more fully illustrated by a communication from a practical agriculturist, in our next paper. In the mean time, the publick is informed, that

"Very excellent Orchard grass seed may be obtained at this time, by applying to Gerard T. Hopkins & Moore, No. 1, Light-st. wharf, Baltimore, saved by Thomas P. Stadler, of Montgomery county."

The writer of the letter above referred to, says—"I have usually sown the seed in the fall, with my wheat; which I think is much preferable to spring sowing, as the greatest, and, indeed, only trial, is on the young plants during the first summer."

☞As a specimen of the value of grazing land, an English paper gives the instance of a field of 100 acres, at Oxenden, in Leicestershire, on which have been depastured and fattened, in one summer, the astonishing number of 97 bullocks and 200 sheep.

Is that more than is done on Bingham's meadows, near Philadelphia?

☞No effectual means have been adopted, that we are aware of, by any of the neighbouring farmers, to collect for manure, either the night-soil, (contents of privies,) or the thousands of bones that are scattered and lost; yet no manures are more powerful, and we should suppose that measures might be taken to gather these materials into general repositories, at little expense; whence they might be transported conveniently to neighbouring farms and gardens. A late English paper says, "the use of ground bones as manure, particularly for turnips, is now becoming general in the counties of Angus and Perth, in Scotland. Mr. Watson, of Kieller farm, near Cupar Angus, says:—'The bone manure has been a great blessing to the breeders and feeders of cattle in this district, and in some instances saved the industrious tenant from ruin.—The severe drought, even of 1825, did not prevent a crop of turnips with bones, while all other manures failed; and it was thus the means of bringing through that disastrous winter, herds of cattle which must have otherwise perished for want of fodder.'"

☞ Price of Wood.—It may be regarded as a curious fact that, in 1819 when the steam boats had fairly commenced running, pine wood sold for $3 50 and $4 per cord. Steam boats have multiplied every where—pine wood is almost universally the fuel used, and the price of wood has been coming down until for sometime past it has been from $1 75 to $2 per cord. Has not the annual growth of wood on the tide waters of Maryland where pine abounds, exceeded the consumption for the last 20 years—is not the cultivated surface of land less than it was? Is it owing to emigration from the state? to the fertilizing power of plaster of paris, converting old fields into tobacco and corn land, and thus superseding the necessity and practice of clearing new lands for tobacco? to wood-saving improvements in our fire places? to the reduction of bank discounts? to what is it owing if the fact be so?

A New Variety of Barn-door Fowl.—The Singing Cock.

☞ It has been our good luck through the agency of naval officers, our consuls abroad, and merchants and other liberal citizens at home, to have been instrumental in introducing a great variety of vegetables, grains, fruits, fowls and animals which had never before been reared in America. Another is added to the list of dung-hill fowls by the kind attention of our consul at Rio. W. H. D. C. Wright, Esq. who has been for fourteen months discharging the duties of chargé d'affaires at that place, during a somewhat critical state of our relations with that government. The fowl which has been sent us by Mr. Wright may be regarded we suppose rather as a *curiosity*, than as an useful addition to our stock of poultry. It is called in Brazils the "Canta Galla," or singing cock, from its crow being spun out, as in the new style of singing, until you begin to fear the fine lady will spin out all the breath she has in her body, leaving not enough to recover upon. Mr. Rebello the liberal distributer of the "Rebello Premiums," at our cattle shows was the first to mention to us the existence of the "Canta Galla."

Dear Sir, *Rio de Janeiro, July 14th*, 1828.

I could not obtain any of the musical cocks here, I sent to a friend at St. Paul's and he sent only cocks. I send two, the black is a fine crower. I have sent for others, male and female, which I will send you when I receive them. The two now sent Capt. Williams of the Margaretta will deliver.

W. H. D. C. WRIGHT.

Cheap Drinking!—*Pity but Whiskey were the same Price.*

At Bremen there is a wine-cellar, called the Store, where five hogsheads of Rhenish wine have been preserved since the year 1625. These five hogsheads cost 1,200 francs. Had this sum been put out to compound interest, each hogshead would now be worth a thousand millions of money; a bottle of this precious wine would cost 21,799,480 francs; and a single wine glass 2,725,808 francs (or about 110,000*l.* English.)

☞ "I have travelled," says a recent tourist, "through 150 miles of the finest part of Spain (Estremadura,) in a climate which even now (March) is warm, dry, and beautiful, and I have not found *one settled foreigner*—English, French, or German. Nevertheless, if cheapness could tempt foreigners to reside here, there would be plenty, for I have good wine at less than 1½d. English, per bottle, good bread at 1d. per lb., 100 eggs for less than 1s. 6d., a rabbit for 3d., and good mutton for 2½d. per lb. As to the expense of an equipage, the barley and straw for a pair of horses does not cost 1s. daily."

A correspondent of the Editor of the N. Y. Commercial Advertiser, writing from Canada remarks:

"I see by the Kingston Chronicle, that the Lieutenant Governor intends to put a stop to all the distilleries in this province, for a time, in consequence of the result of the wheat harvests. The new wheat is very bad, being much shrunk and touched with the rust. Old wheat is now selling, on navigable water, at one dollar and an half per bushel, and even a considerable advance is expected. The western part of the state of New York, if my information is correct, is in nearly the same condition."

☞ The Editor of the Microcosm, published at Providence, pourtraying the agency of old Captain Bunker in bringing steamboat structure and navigation to its present high state of improvement, enumerates amongst other facts, that Capt. Bunker is now the oldest steam captain living, and is entitled to wear the broad pendant, the veteran Commodore Wiswall, (who, however, never went out of river navigation) having struck his flag, and retired from active life.

In 1807 the first steamboat appeared on the North River.

Captain Bunker was the first to build and run a steamboat (the Fulton) on rough water sea navigation; she commenced her trips on the Sound in 1815, after the war; with Captain B. originated the idea of propelling a steamboat by two engines, independent of each other, and on one occasion the Washington performed several trips with one wheel.

It is thus Capt. Bunker has been instrumental in improving steam navigation until the trips between New York and this place have been reduced in many instances from twenty-four to sixteen hours.—Capt. Bunker was on board the first steamboat in which Fulton was propelled on the North River, when the inventor of steam navigation expressed his entire satisfaction at seeing his boat move in still water at the rate of five miles an hour. If the Benjamin Franklin come up to public expectation, she will nearly treble that speed on rough water.

(From the Georgia Statesman.)

From the following advertisement, taken from the *South Carolina State Gazette* of the 23d instant, it appears that North Carolina is preparing not only to supply her own wants but also to furnish the market of South Carolina. Sincerely do we wish her success; and should be pleased to see her sheeting in the Georgia market, in which it would be sure to receive the preference.

"*Southern Domestics.*—The subscribers have received on consignment, from the Lincolnton Manufacturing Company of North Carolina, *three thousand yards* 4-4 *Sheeting*, which they offer low for cash, either by wholesale or retail. Those who wish to encourage Southern enterprize will please favor us with a call. D. & J. EWART."

Columbia, S. C. August 6, 1828.

Latest from England.

The packet ship Caledonia, sailed from Liverpool on the 2d of August, bringing papers to that date inclusive.

Parliament was prorogued on the 28th of July.

The 8th and 9th Bulletins of the Russian army are dated at the camp at Karassu, July 5th, giving further details of the capitulation of the fortress of Brailaw. The Russian main army was to advance by forced marches to Banargik.

The Gazette de France of July 29th, gives the latest advices from Bucharest.

Bucharest, July 18.—Accounts this moment received inform us that Managlia, an important fortified place, which defends the road to Varna, has surrendered to the Russians. There is now no obstacle to stop the march of the left wing of the Russians towards Varna.

Private letters received at Vienna from Bucharest, of the 4th July, say that the Russian authorities had arrested fifteen individuals, guilty of having designedly brought the plague to that city. The same letters assert that the Russian troops had already effected a landing near Varna.

M. S. Canning set off for Ancona from Leghorn, on the 12th July, to proceed to Corfu, where, it was believed, the ministers from France and Russia had arrived.

Usurpation, says the Courier, has triumphed over legitimacy in Madeira, as well as Oporto; the result of the efforts of his partizans at the latter place having enabled Miguel to direct his force against those islands, which would otherwise have remained faithful to Don Pedro.

The sales of Cotton at Liverpool, for the week ending July 26th, amounted to 12,800 bags—including 4589 bales Upland, at 6 to 7 3-8; 1510 Orleans, 6½ to 8½; and 2270 Alabama, at 6 1-8 to 7 1-8d.

Liverpool, July 31.—The sales of Cotton the present week, thus far, has been about 10,000 bags at previous prices. Import in same time, 8,800 bags, of which 3000 only from the U. States.

ORCHARD GRASS SEED.

Two hundred bushels of *very superior quality*, perfectly clear of every sort of filth and well cleaned, for sale by EDWARD J. WILLSON,

Commission Merchant, No. 4, Bowly's wharf.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 6.00 *a* 10.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 233 hhds. Maryland, 107 Ohio.

Flour—white wheat family, $6.00 *a* 7.00—superfine Howard-street, 5.50 *a* 5.62½; city mills, 5.00; Susquehanna, 5.00 *a* 5.25—Corn Meal, bbl. 2.50—Grain, best red wheat, .90 *a* 1.00—best white wheat, 1.00 *a* 1.15—ordinary to good, .75 *a* .90—Corn, .32 *a* .34—Rye, .40—Oats, bush. .13 *a* .21—Beans, 1.25—Peas, .50 *a* .60—Clover seed, 4.75 *a* 5.25—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .11 *a* .12—Mississippi .10 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 6.25 *a* 6.50; No. 2, 6.00; No. 3, 3.50 *a* 3.75—Bacon, hams, Balt. cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Marketing—Apples, bush. .50 *a* .75; Peaches, peck, .50; Pears, .25 *a* .37; Butter, lb. .25 *a* 31¼; Eggs, dozen, .16; Potatoes, Irish, bush. 1.00; Sweet, do. 1.00; Chickens, dozen, 2.00 *a* 2.25; young Ducks, doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Lambs, dressed, 1.75; young Pigs, do. .75 *a* 87½; Sausages, lb. .8 *a* .10; Soft Crabs, doz. .50 *a* .75; Hard do. 18¾; green Corn, dozen, .25; Canteloupes, .6 *a* .8 each; Tomatoes, peck, .25; Onions, bush. .50; Cucumbers, pickling, per hundred, .25; Beets, bunch, .6¼; Turnips, bushel, 1.00; fresh Mackerel, 37½ *a* .50 each; prime Beef on the hoof, 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

(From the Southern Agriculturist.)

INDIGO.

On the method of Manufacturing Indigo on the coast of Coromandel, in India, and Senegal, under the auspices of the French government, by George M. Gibbes, *of Combahee, S. C.—addressed to William Washington, Esq., and by him politely handed to us for publication.*

Combahee, Dec. 3, 1827.

Sir,—The importance of multiplying the staple productions of the Southern states, induces me to suggest to the consideration of the Agricultural Society of South Carolina, the expediency of encouraging experiments in the cultivation of indigo; and particularly of manufacturing it from the *dry leaves*, as practised on the coast of Coromandel, in India; and recently, in Senegal, under the immediate auspices of the French government—instead of from the green weed, as was formerly done in this state. According to information obtained from a highly respectable proprietor, and extensive practical manufacturer, during a period of fourteen years in the former country, (and now resident in this,) almost the whole of the indigo made in Coromandel, is manufactured from the leaves of the plant only, after they have been dried, packed, and transported to the factories by the farmers, and, in most instances, from distant parts of the country. After the plant is cut, it is spread out to dry in the sun, on a space of ground left for the purpose, for about six or eight hours, when it is threshed or shaken in the hand to break off the leaves, which crumble easily: the stems are then raked off as useless, the impression being, from various experiments, that this part of the plant contains little or none of the colouring matter, and the leaves are packed away in the house, as tight as possible, so as to preserve them from the air, until the harvest is completed, and the farmer is at leisure either to manufacture himself, or to transport them to the regular factories. If the season is wet, drying in the house is resorted to; and when the leaves crumble in the hand, it is considered indication of their being sufficiently cured. The advantages of thus separating the two operations of harvest and manufacture, (which otherwise go together, from the necessity of steeping the green plants as soon as cut,) the saving of transportation of the heaviest portion of the plant from the field to the vats, as well as the postponement of the manufacturing process, until the healthy season, when the superintendance of the proprietor may be obtained, will be at once apparent to the practical agriculturist. And if the cultivation only could be confined to the plantation, and the manufacture performed at regular factories, where the business could be conducted on a larger scale, there is little doubt but that (as in almost all other operations of the kind,) superiority in the quality of the article made and economy in the use of the raw material, would be the consequence. The great objections of our old planters to the pursuit, viz: the uncertainty of the result, and disagreeableness, if not unhealthfulness of the fermenting process, would be removed, and the simplicity of the whole business promoted. With a view to this end, a distinguished professional dyer of New York, Mr. William Partridge, has offered to receive, to the amount of several tons, leaf raised the next season, and cured according to the foregoing directions; and will return to the planter two-thirds of any profits which may result from the experiments made. This gentleman has obtained a patent for dyeing from the leaf, either dry, or in its fermented state, according to the African mode of preparing it, which is, by simply moistening and grinding the dry leaves sufficiently to produce fermentation and adhesion, so as to permit of its being rolled into balls, and packed for market;* and which is the same process generally pursued in preparing woad in England, and in which state the woad imported into this country is received. As it is believed that no experiments in preparing indigo for market by this latter mode have been made public, it is presumed to be equally entitled to trial as any other, especially when it is considered that the African blue dyes are superior to those obtained from the best Madras indigo.

The great superiority in the quality of indigo now made, over that which was formerly produced either in India or America, its enhancement in value, and the constantly increasing demand, would seem sufficiently important considerations to induce a partial return to its cultivation, in the present depressed state of the cotton market, independent of the benefit which may be expected to the land itself by a change of crop. It is true, that considerable doubt has been entertained whether the superiority of the indigo now made, is owing to greater skill, or to the more favourable soil and climate of India.

There are two circumstances which appear calculated to promote a belief, that the former is the chief, if not the only cause; viz. that previous to 1779, the year in which the East India Company commenced making indigo in India, the article there was inferior to that made in the United States, from whence Great Britain received her principal supplies; and also, that of what is now made in Carolina, a portion is of the very first quality, as admitted by the dyers in the Northern states, who are in the habit of using, annually, the small quantity which is still produced in our upper districts.

The difficulty of obtaining accurate information as to the most improved modes of preparing indigo, now practised in other parts of the world, renders it impossible to institute a comparison with that which was customary in Carolina, before it was abandoned as a staple, from which the extent of those improvements may be estimated. But it is reasonable to conclude, that under the patronage of the British government, and with the aid of chemistry, they must have been considerable. As far as I have been able to learn from the various sources consulted, they consist chiefly in the period of cutting the plant, as a subject of the very first importance; and next, in the steeping and beating process—size of the vats, &c. It is universally admitted, however, that perfection in the art of indigo making, is more a matter of experience than of science, and that no particular rules will prevail at all times, even in the same country; that nothing, indeed, short of long practice and minute attention, can possibly lead to successful results.

As regards the proper time of cutting the plant, there is much variety of opinion. In Coromandel, it is not considered fit to cut, until the plant is in full blossom, and just before seeding; whilst, in India, generally, (as stated in Loudon's Encyclopœdia of Agriculture,) "the plants are not allowed to come to flower, as the leaf in that case becomes dry and hard, and the indigo produced is of less value."—The improvement lately introduced into France by M. Morina, an Italian, in obtaining indigo from the woad plant, by cutting the leaves when very green, instead of when ripe, as formerly, may, perhaps, add more strength to the latter opinion, from the similarity of the two plants. In a memoir on indigo, lately received from a cultivator in the neighbourhood of Caraccas, it is observed, that "the weed is cut about three and a half months after planting; and the most certain method of knowing the period of its maturity, is, by squeezing the young shoots in the hand; if it cakes, it is not ripe, but if it pulverizes, it is then fit to cut."

When the green weed is to be steeped, from the necessity of doing so the same day on which it is cut, it is evidently impossible to harvest the whole crop at the precise period of its perfection, as this operation must be dependent on the progress of the manufacture; which circumstance, with the difficulty of obtaining skill in the manufacture, as well as the scarcity of clear and soft water in the low country, which is so indispensable in making good indigo, afford additional reasons for confining the planter to its cultivation only, should the plan proposed be found practicable.

The improvements which are stated to have taken place in the large factories in India, are chiefly in the attention to cleanliness, by which all extraneous matter is excluded, and the *expedition* with which the beating process is performed, by means of machinery, and on which the quality of the indigo is said so much to depend: for, in the process of oxigizing, by which it is converted from the green to the blue state, the rapidity with which it is exposed to the atmosphere, is considered by chemists as all-important to the perfect separation which should take place of the colouring matter from the salts and extraneous liquor: and to the slow mode of doing which, as formerly practised in Carolina, as well as to the too great quantities of lime used to facilitate the precipitation of the feculæ, has been, in a great measure, ascribed to the inferiority of the article made. In India, lime-water only is used, and that sparingly; and, in testing the perfection of this stage, it is observed that the most certain indication, next to that of the apparent separation of the dregs, is the colour of the water, which should be that of brandy; and if either green or black, that there has been a defect, and the indigo will not be good. If my information is correct, that it was customary, formerly, in this country, to continue the beating after the precipitation was observed to have taken place, it may be considered as another great defect, as it is now well understood, that in this event a reversion of the particles, and consequent formation ensues, which completely spoils the colour.

Similar expedition is attended to in the previous steeping of the weed, as twenty minutes only is prescribed as proper to be allowed for filling the vats. It is in this branch of the business, that the greatest advantage results from the use of the dry leaves; for, in steeping them, only one or two hours is requisite to extract the colouring matter, and no fermentation takes place: whereas, in fermenting the green weed, twelve hours or more is required. Besides which, there is always some uncertainty in the success of the latter process—for, if the fermentation is too great, the quantity is increased, but the quality certainly injured.

The dimensions of the vats (which can be furnished, if desired,) are proportioned to each other, and greater success is found to exist, when the business is conducted on a large, than on a small scale.

In the cultivation of the plant, there does not appear any material difference in the different countries where it grows, other than such as local circumstances render necessary—and the probability is, that the mode best suited to our soil is that which was practised.

In the State of Salvador, (the crop of which, for the year 1825, was valued at $2,400,000,) a rich, moist soil is required—the seed is sown three or four inches deep, and the plant flowers in two months. In Coromandel, a cool soil is preferred, by which is meant, that where water is found at a short distance below the surface; and the height which the plant attains, is a strong indication of the quantity of colouring matter to be expected—it being observed, that four feet was the best height, and that when it reached eight feet, the quantity and quality of indigo made were both deficient. The quantity of indigo made to the acre is not easily ascertained. In the West Indies, where it is cut three or four times, the yield has been as high as five hundred pounds—and, in some of the interior provinces of Hindostan, when they have as many as nine cuttings, it is said to be still greater.

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* See Bancroft on Permanent Dyes, and Mungo Park's Mission to Africa, page 143, for another mode practised in that country.

When it is considered that the estimated value of the indigo annually consumed in the United States, is upwards of $4,000,000, and that the increasing demand is likely to keep pace with the increase of manufactures generally; that a protecting duty of fifteen cents a pound already exists, and that complete security from foreign competition must ensue, should the contemplated commercial policy of the country go into effect, the expectation may not be chimerical, that this valuable plant, which is indigenous to the soil of Carolina, will once more become a source of wealth and prosperity to the state.

With great respect, I am, sir,
Your obed't serv't,
GEORGE M. GIBBES.

P. S.—I send you a few roots of the madder, which, as well as the wild plant, and the Sicily sumach, are articles of increasing consumption in the manufactories of the north, and may be well worth trial in this climate. Several very profitable experiments have been made with them recently at the north; and the wild sumach has been cultivated to some extent, although the quality in that climate is so inferior as to command only one half the price of that which is imported from the more mild regions of Portugal and Sicily.

AGRICULTURE.

It is a fault too general with our farmers, that they suffer themselves to remain ignorant of important facts, which they might easily ascertain from experiment. To gratify our curiosity, we have inquired of several experienced farmers and dairymen, what quantity of milk, of common quality, will make a pound of butter—and how much cheese a given quantity of milk would produce—and have not been able to obtain any thing like a satisfactory answer to either question. We get nothing but conjectures, and they are extremely various. Now, how easily these points might be ascertained—only by measuring two quantities of milk and making one into butter and the other into cheese, and weighing—and how important to a judicious decision whether it is more profitable to make butter or cheese.

Farmers disagree, too, very essentially, as to the comparative value of different kinds of food for cattle and swine. One will say that three bushels of potatoes will make as much pork as a bushel of corn; another will say four, and a third, living in the same neighbourhood, will prefer a bushel of corn to six bushels of potatoes. One will say that a bushel of peas is worth five pecks of corn for the same purpose—another will prefer the same quantity of corn to peas—and a third will say they are of just about equal value. One farmer will say that a ton of hay and six bushels of corn are equal to two tons of hay for keeping neat cattle—another will require seven bushels of corn—another eight—another nine—another ten for the second ton of hay. Now it is evident those farmers have come to their several conclusions from no data to be relied on—that they have not had recourse to weight and measures—yet these disputed points might easily be ascertained to such a degree of certainty as would render the farmer essential aid in profitably applying his labour and disposing of its effects.

We venture to suggest the following easy and cheap experiments:—Let one farmer select two shoats as near alike in age, size and condition as may be, weigh them, make a record of the weight of each, shut them up in separate apartments—measure or rather weigh out (as there is a considerable disparity in the quality of corn, and some variety in the rule for measuring potatoes) a quantity of Indian corn meal for one, and a quantity of potatoes for the other—after properly feeding each with his appropriate food for some weeks, weigh them again, and record the quantity of food consumed by each, and the increase in weight of each. In like manner let an experiment be tried by the same farmer or his neighbour on two other shoats, feeding one with peas and the other with meal and potatoes mixed. Let a farmer select from his neat stock two animals as near alike in age, size and condition, measure them as a farmer does his oxen, if weighing be impracticable, feed them separately, weighing a quantity of hay to one, and half the quantity to the other, with as much meal as may be judged enough to supply the deficiency; after a sufficient time, measure or weigh them again—record the result with such observations as circumstances may suggest. To arrive at a greater degree of certainty, it would be well to repeat these experiments. Their utility must be obvious—and if any of our agricultural friends should be induced to try any or all of them, and will acquaint us with the results, we shall take pleasure in giving them publicity in the "Citizen." [*Wiscassat Citizen.*

GRUBS IN HORSES.

[☞This letter, and the subsequent one, were by the same mail, and read in succession. We are free to declare the pleasure we derive, from such testimony to the usefulness of our labours in the cause of agriculture; and whilst we are aided by such correspondents, it is not venturing much to say, that this journal would be more useful to the farmer and his family than mere political partizan papers, by which it is in so many instances excluded from circulation.]

Mr. Skinner, *Halifax, N. C., Aug.* 27, 1828.

I saw an article in your paper some days since, requesting information on the subject of grubs or botts in horses. Always fond of that animal, their diseases have been, with me, a study, and there are few complaints to which he is subject that I cannot cure with certainty; the grubs I never fail to relieve in five minutes.

My father, who spent much of his long and active life on the road, assured me often that *blood* was an infallible remedy for the grubs, which he had used in a number of instances with invariable success.

The method of feeding on green oats is equally effectual in carrying them off; the quantity which a horse will thus discharge is almost incredible. I am not willing my name should appear to the article in the paper, but am willing you should give it to any gentleman who may apply.

Permit me to add, that any disease which is fatal to horses on which you wish information, it will give me pleasure to afford you. As I consider your paper one of the most useful ever established in our country, I think it merits my assistance and encouragement.

I am, sir, most respectfully, yours, D.

Remedy for Grubs in Horses.

All the symptoms of colic and grubs in horses are the same; and unless a horse swells no one can discern the difference. It would be well, therefore, to commence for the grubs, as the more fatal and dangerous disease—add to which, the remedy here recommended, is an alleviation, if not a cure, for the colic, and in a slight attack would relieve immediately. So soon as a horse shows symptoms of uneasiness, such as groaning, looking back towards his sides, laying down, &c., he should be bled in the neck; which being caught in bottles, should be immediately poured down the horse. The bottles, while held to receive the blood, may be immersed in hot water, to prevent coagulation, and to keep it in a warm and liquid state; the horse should be made to swallow from three quarts to a gallon. I never yet knew this fail to give relief in five minutes; this is asserted on an experience of thirty years.

Its operation is thus accounted for: the grubs, from some cause, having abandoned their usual food, seize upon the stomach, and when the warm blood thus thrown in reaches them, they immediately loose their hold to feed on it; so that instant relief follows. The bleeding has a tendency to allay any fever caused by the attack, and if a sufficient quantity is given it will act as a purgative and carry them off.

It is not an uncommon thing for grubs to attack a horse soon after he is relieved from the colic.—They are disturbed either by the disease or the means used to cure. When once roused to action, they never fail to seize on the most vital and dangerous part. It would therefore be well, in all cases of either colic or grubs, to give an active purge after the horse is relieved from pain; as when loose, they are easily carried off with the medicine, but when attached to the stomach, nothing that would leave life in the horse could force them to quit their hold. This may be demonstrated by attempting to detach them from the stomach of a dead horse. The grub is surely produced from the nit; is frequently seen on horses, which only requires heat and moisture to hatch: thus, if slightly moistened, and the breath blown on it with the hand partly closed, it will in a few moments produce a most active little worm; which, if he gets in the mouth, is as well calculated to travel down the throat, as he is afterwards to produce the most fatal effects.

A few weeks feeding on green oats, or corn cut up, stalk, ear and all, will generally carry off most of the grubs that may be in a horse; at least they will thus get rid of large quantities, which must surely lessen the danger. It is vain to endeavour to destroy them; what would kill a horse in fifteen minutes, would scarcely affect them, or if it would, the remedy would be as bad as the disease. D.

As you notice stock, and all that belongs to farming, inform those curious in cattle, that I have a milk white heifer now two years old, not one coloured hair about her. I believe such a one has never been seen before in America or England.* I wish she was in the possession of Mr. Powel, or some other gentleman in the habit of raising fine stock; she is indeed beautiful, and in good shape. But ours is not a farming country, and our cattle are particularly neglected. There is no fine stock here to breed from, or I should be tempted to try what might be raised from her. D.

PROSPECT OF CROPS.

Glenambler, Amherst county, Virginia,
J. S. Skinner, Esq., *September* 1, 1828.

Sir,—The 23d number, vol. 10, of the American Farmer, has just come to hand, and I find it contains, under the head of "prospect of crops," an extract of a letter from Mr. Wm. Woods, dated Albemarle county, Virginia, in which he communicates to you an account of the destructive effect which has been produced upon the growing crops, by the excessive drought which has prevailed in that part of the state.

[* Our valued correspondent is mistaken in this. The very beautiful heifer, White Rose, imported by the Editor, from Charles Champion, Esq., an eminent English agriculturist, was, we think, without a hair of any other colour but white. We believe that many of the Improved Short-horned cattle are entirely so.]

As the interest of the grower of crops is materially involved, in its being as widely circulated as possible, when, from any cause whatever, the aggregate quantity of any article of produce has sustained a considerable diminution, I take the liberty of adding to the statement of your correspondent, (Mr. Woods, of Albemarle.) that all the country intervening between his county and mine, besides much the greatest portion of Amherst, including the counties of Rockbridge and Botetourt, has suffered under the same calamity, extended to a more aggravated and destructive length.

The rain, which terminated the drought in the neighbourhood of Mr. Woods on the 10th of August, which had continued from the 17th of June, has not yet come (Sept. 1st,) to afford us the little relief which it might occasion, after such a protracted spell of dry and hot weather as we have endured. You may judge of what will be the diminution of the crops of Indian corn in our neighbourhood, by the drought this summer, from my own case. My crops differ very little in amount, from year to year; yet in the autumn of 1827, I gathered between *five and six hundred* barrels of corn, and the present season I do not expect to make more than *one hundred and fifty.*

The tobacco, which stands a drought better than corn, has suffered less than the corn crop; though the aggregate quantity of this article throughout the south-western part of our state, (which may be called the tobacco district of Virginia,) will also sustain an enormous diminution. For if the season had been as favourable as could have been desired, the scarcity of plants in the spring would alone have been a sufficient cause to make the present crop of tobacco a smaller one, than has been grown in Virginia for many years.

The crop of wheat, too, has been a very short one in my immediate neighbourhood, this summer. And whilst upon the subject of wheat, I will mention that it has of late years become so unproductive a crop in this section of the country, that *I* have almost determined never to sow another grain of it, until the cause of its regular and almost total failure with us has been ascertained, and a remedy pointed out; and I now advert to the fact, in the hope that some of your scientific correspondents may go into an investigation of the subject, ascertain the extent of the evil of which I complain, point out the cause of our want of success in the cultivation of this crop, and give us a system which may enable us to counteract its effects. For in my neighbourhood it is certainly true, that the same quantity of seed, sown upon land of exactly the same quality, with the same sort of cultivation, which ten years ago would have produced 1200 bushels of wheat, will not now yield more than from 400 to 600 bushels.

Permit me to say, sir, in conclusion, that I cast from me in disgust, the politcal squabbles and abuse with which almost all the journals of the day are filled, and turn with pleasure to the American Farmer, from which I rarely fail to derive both amusement and instruction. Wishing you every success in the useful career which you have selected, and cordially offering to reciprocate the polite offers made to me in your letter of last spring, I beg leave to subscribe myself,

Very respectfully, your obed't serv't,
JOHN JAQUELIN AMBLER,
of Glenambler.

LUCERNE.

Mr. David Beal of Kingston, Ms. informs us that he sowed two lbs. of Lucerne in the spring of 1827, which yielded him two heavy crops the first season. It was sowed with oats, and red top.—In 1828 it was mowed on the 20th of June—on the 11th of July the second crop was cut, when it was 21 inches high, having grown 1 inch per day, since the first mowing. It grew rapidly for the third crop, and was in flower, when circumstances obliged him to turn the field into pasture. Horses, cows, and all kinds of stock give it a decided preference to other grasses. [*N. E. Farmer.*

(From the New England Farmer.)

The Criteria of a beautiful Cow, according to Wilkinson, may be thus expressed.

She's long in her face, she's fine in her horn,
She'll quickly get fat, without cake or corn,
She's clear in her jaws, and full in her chine,
She's heavy in flank, and wide in her loin.

She's broad in her ribs, and long in her rump,
A strait and flat back, with never a hump;
She's wide in her hips, and calm in her eyes,
She's fine in her shoulders, and thin in her thighs.

She's light in her neck, and small in her tail,
She's wide in her breast, and good at the pail,
She's fine in her bone, and silky of skin,
She's a Grazier's without, and a Butcher's within.

HORTICULTURE.

GRAPES.

Linnæan Botanic Garden,
J. S. Skinner, Esq., *Sept.* 2, 1828.

Sir—During the past year I have received from gentlemen in different parts of the Union, various kinds of grapes, with statements as to their quality, supposed origin, &c., and accompanied, in most instances, with a desire that I would give my opinion relative to them. To some misconceptions which exist, I am able now to reply, and know no better mode of imparting the information than through your widely circulating paper. I received from Christian Backman, Esq., of Lancaster, Pa., some vines of a grape which he states is extensively cultivated by Mr. Eichelberger, of York, Pa., and other gentlemen in that vicinity; and that their vineyards are almost wholely composed of it. Mr. B. remarks, "this grape is considered preferable to all the others cultivated in the different vineyards at York, and as to vigour and growth, it appears to be next to the Isabella and Catawba, but not quite as great a bearer as either of these. Mr. B. further states that it is there called "*Black Madeira,*" and that he has been informed "that it was brought from the island of Madeira by a gentleman of Maryland, from whom Mr. Eichelberger received it in the year 1819;" "the fruit is black, and contains a pulp that is sweet and very juicy;" "it is a certain bearer, and the hardiest grape that grows in that part of the country." Touching this grape, I have to state that it proves, on examination, to be a *genuine native beyond all doubt;* it therefore follows, that the idea about its coming from Madeira is imaginary.

A grape, received from George Carter, Esq., of Virginia, and represented as very fine and productive, proves also to be a *native*, which I have called in my new catalogue "*Carter's favorite.*"

The vines received by the name of "*Sloe,*" from Virginia, and of "*Black or purple oval Muscadine,*" from Georgia, are the same as the Black Scuppernong or Roanoke grape, of which it is doubtless well known that there are two, if not three varieties.

The grape received from Major Adlum, under the name of "Naebacker's Muscat," *is not a native*, but an *exotic* grape.

The "Muncy pale red," received from the same gentleman, is a *native*, greatly resembling in foliage the Blands, and may prove to be the same; the "Raisin de côte," from Louisiana, and "Norton's Virginia seedling," have also foliage resembling the Blands, although the fruit is very different.

The "Warreoton" grape, which has acquired much celebrity in Warren county, Georgia, and has been supposed to be a native, I find on examination to be a foreign variety.

I received two grapes, also, from New Jersey, called "Jordan's large blue," and "Cooper's wine," which were stated to be natives, but they proved to be exotics.

I have a dark purple grape under culture, which is known about Albany as the "Winne" grape; it is very productive, and a native. A very superior kind was sent me last season from Missouri, called there "Solander's large purple;" its growth is very strong and vigorous.

The astonishing diversity of foliage in the American species and varieties, is particularly interesting, and in none more striking than in the Texas, Louisiana, Missouri, and Arkansas vines. The leaves of the Texas are some of them entire, others three lobed, and a part five lobed on the same vine. The Scuppernong may also be easily distinguished, by its foliage alone, from all other grapes. Another circumstance worthy of note is, that a number of the native species are diœcous, including vitis riparia, scuppernong, and probably Long's Arkansa.

I have now thirty-four genuine American varieties, which are sufficiently increased to offer to the public in my new catalogue, which will shortly issue from the press, and which will comprise about 400 varieties of exotic and native grapes, which form my present collection. I have now 25,000 vines ready for the supply of those who desire them the present autumn.

Your obed't serv't,
WM. PRINCE.

THE COW CABBAGE.

The following account of this extraordinary vegetable is extracted from the *Gardener's Magazine:* —"I enclose a few seeds of an arborescent cabbage, introduced from La Vendee, by the celebrated Comte de Puisaye, which promises to be an important acquisition to agriculture. I have seen it growing in the garden of my friend, Admiral Brooking, here, to the height of eight feet. In La Vendee, I am told, it attains an altitude of from 12 to 15 or even more feet. Being a native of a warmer climate, it should be planted in a warm and sheltered situation: sixty plants are said to afford sufficient provender for a cow for a year, and as the side shoots only are used, it lasts four years without fresh planting. A square of 60 feet will contain 246 plants, four feet apart, or 16 more than four cows require for a year's provender, without the aid of other food. W. Hamilton, Oxford Place, Plymouth."—Mr. William Lee, a native of Leeds, now resident, in France, has brought over a small quantity of the seed of the cow cabbage, which he has distributed to his friends.

RURAL ECONOMY.

(From the North Carolina Register.)

ICE-HOUSES.

We are indebted to an intelligent friend for the following remarks on the best method of collecting and preserving ice:

The great difficulty in obtaining a full supply of this article in the climate of North Carolina, arises from the short continuance of the ice in its mild and changeable winters.

It often happens that ice does not form thick enough to be worth collecting more than once during the season, and remains only two or three days before a change in the weather carries it suddenly off; within this short period, it is scarcely possible to obtain a full supply, especially where it is to be hauled a mile or two to the house in which it is to be preserved.

To remove this difficulty, it has been proposed to build a temporary ice-house near the pond from which the ice is to be taken, into which the ice may be thrown, to be carted afterwards to the ice-house as may be convenient.

The following plan was tried the last winter by a gentleman in a neighbouring state, and attended with complete success:

A pen of logs, about 18 feet square, was put up on the margin of a pond, and this was raised about 5 feet high. It was then covered with planks, so as entirely to exclude the rain and sunshine. Into this pen the ice was thrown without further preparation, except that a small ditch was dug around the pen, to prevent the water from rain running under the ice. The ice was afterwards carted to the ice-house in all the month of January, selecting for that purpose clear, dry weather, without regard to sunshine. Ten hands filled this pen in less than two days, and this quantity afforded an ample supply for a large family during the succeeding summer.

An ice-house is incomplete, if it be without a drain to carry off the dissolved ice. Where this cannot be conveniently obtained, a well six or eight feet deep may be dug on one side of the pit to receive the water which drains from the ice; but the first plan is much to be preferred. And as moisture is very unfriendly to the preservation of ice, an ice-house should be constructed with a window at each end, which should be opened in dry, but closed in damp weather.

A large shelter or covering of rough plank or boards, raised about two feet above the top of the ice-house, is the next and the greatest improvement in the construction of ice houses, which modern enterprise has been able to effect.

By attending to the above suggestions, a supply of this agreeable article in domestic economy may be obtained with a greater certainty of success than by any method now practised.

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[A correspondent wishes to know how ice-houses may be constructed above ground, in low, damp situations, where water lies too near the surface to admit of making them below it, in the usual way. To this we can only say, what appears obvious, that a pen of logs must be raised above ground, surrounded by some means, no matter what, with earth, in such manner as to exclude the effect of the heat of the sun. Suppose a double house, with the intervening space so wide as to be filled in with earth or tan-bark to exclude the heat? This would, perhaps, be easier than to build up a mound of earth from a considerable distance from the base of the house to the top of it. Both would be expensive; but no doubt the thing may be done, and the object is worthy of much labour to accomplish it.

The ice which was brought here from the north last winter, is found to be much clearer, harder and more durable than that which is usually collected in this immediate vicinity.]

VILLAGE POULTRY.

We have often admired the policy of our villagers, who keep fowls to scratch up their gardens. Having a few precious feet of ground, not a particle of which should be misimproved, they lay out their beds and plant their seeds, and then let in their hens to mar their labors, and destroy the hopes of the season. A single old hen, well practised in the use of beak and claws, will do more injury in a garden in one hour, than the eggs and chickens of a dozen can compensate in a year. But if they merely injured the property of their owners, (however questionable the policy of keeping poultry in a village might be) no other person would have just cause of complaint. But where gardens and tenements join each other, these marauders think it no hardship at all to scale the walls, and scratch up the seeds of their neighbours. And hence besides the direct mischief they do to gardens, they set neighbours by the ears, and by their own clawing cause a clapper-clawing among the bipeds of the superior order.

INTERNAL IMPROVEMENT.

INTERNAL IMPROVEMENT OF CANADA,

Affecting the United States.

Welland Canal.—The conduct of the American government, in passing the obnoxious tariff bill, has been a means of calling the attention of the country more generally to the Welland Canal, a work which has been commenced and considerable progress made in it by a company incorporated in Upper Canada for the purpose, in the year 1825. This canal will connect lakes Erie and Ontario, and will be of sufficient dimensions to admit the passage of vessels of 125 tons burthen. There are two communications with lake Erie, the one by the Niagara, which will be finished by the first of November next; the other by the Grand River, which has been contracted for, and will be finished by the first of November, 1829. There has scarcely been a measure yet brought before the public which, as it appears to us, holds out a fairer prospect of a profitable investment of money than the Welland Canal, or one in which the manufacturing, mercantile, and shipping interest of this country are more directly interested. The high duties imposed by the new tariff of the United States on the staple commodities of this country will almost exclude them from that part of the continent of America; and the opening of this extensive water communication in Canada will give an extent of lake and river coast, bordering on the United States, equal in extent to the whole coast of the Atlantic, and completely counteract the attempt of the American government to exclude our fabrics. But, independent of this consideration, the investment must be a profitable one, on account of the extent of country which this canal will connect; a country becoming daily more valuable, and the trade of which is rapidly increasing. From lake Erie there is an uninterrupted communication to lakes St. Clare, Huron, and Michigan, and the connexion with lake Superior at the Sous St. Marie may be rendered navigable at a small expense; and, although the trade of the country bordering on lake Erie alone is a sufficient object for this canal, its profits most eventually be increased by the navigation of the lakes beyond. A canal from lake Erie to Ohio will be finished next season, by which the produce of a great portion of the country bordering on the Ohio and Mississippi will be conveyed to lake Erie. The merchandise landed at Sandusky, an American port on lake Erie, last season, amounted to 1,319,823 dollars, whence it was taken by land, for the supply of the states bordering on the Ohio. [*English pa.*

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[It is probable that the people of the United States, are generally unaware to what extent the Welland Canal offers facilities to carry into effect the smuggling so openly suggested on the floor of the British House of Commons. We have, under the head of Internal Improvement, already given the locality and navigable capacity of this great work; we have shewn that it is fully adequate to convey from Erie into Ontario, any vessel which can find safe harbours in the former. It therefore, in effect removes the falls of Niagara, as far as the operations of commerce are concerned. But, the Welland is not the only canal in progress in Canada, which when completed will superinduce the same effects; that is to draw the western commerce down the St. Lawrence, and aid any scheme of clandestine transportation which could be proposed. The Rideau Canal, by the Gannoniqui, Rideau and Ottawas rivers, is in progress. In the ensuing week we intend inserting in the Farmer, a geographical notice of the Rideau, its position, extent, and the points it will serve to connect.

It is merely trite to say the people of Canada, and their government, have a right to construct any public work; but the government and people of the United States ought to be on their guard, against any application of such improvements to an infringement of either their laws or policy. We have suggested the necessity from the laws of nature to canal the south side of lake Erie; we shall pursue the subject in a future paper of the still greater necessity of such a work from the relations of national policy.]

LADIES' DEPARTMENT.

(From the New York Advertiser.)

Preservation of Fruits and Juices.

Our late English papers contain several articles under this head, extracted from the "Mechanic's Oracle and Artisan's Complete Laboratory and Workshop," a work published in London. Although the season has gone by for trying experiments in several of the articles enumerated, yet this document may be preserved against another season.

The common method of preserving fruits is by means of sugar, but they retain their natural flavour much better when this is done without the use of such an agent. As the process, though very simple, may be unknown to many of our readers, we state the method of manipulation in few words. It consists in enclosing the fruit to be preserved, in common quart bottles, or in jars, corking them with great care, as the success depends principally on the complete exclusion of the air; and in submitting the bottles to the heat of boiling water, in a water-bath, for a longer or shorter time, according to the nature of the article.

Fruit intended to be preserved, either whole or in quarters, ought not to be completely ripe, being then apt to dissolve in the water-bath. Nor should it be gathered either too soon or too late. The first and the last of the crop have neither the fine flavour, nor the perfume of those which are gathered in the height of the season; that is, when the greater part of the crop of each species is ripe at the same period.

The water-bath best adapted to this purpose consists of a boiler furnished with a cock close to the bottom, to let off the water; but any common washing copper will serve for domestic processes.—When it can be made convenient, the bottles should each be put in a bag open at both ends, with runners to draw them together at the shoulder, and over the edge of the bottom; or they may be put in common stockings, without injury to the latter. This prevents the necessity of employing hay or straw, in the boiler, to keep the bottles from touching. But there is yet another method, namely, to tie a string round the neck of each bottle, and hang them upon sticks. The bottles should not only be well corked, but have a good luting smeared over the cork and neck, for farther security, and this should be done before they are put into the bath. The bottles being placed or hung upright in the boiler, cold water is to be poured into it up to their necks, and then the fire is to be lighted.

The Luting for the Vessels.—An excellent luting fit for this purpose is made of fresh quicklime, slacked in the air by adding water till it be reduced to a powder which should be kept in corked bottles. This powder, mixed with skim-milk cheese, or with curd of skim-milk, from which the whey has been separated, and worked to the thickness of paste, produces a luting which hardens rapidly, and stands the heat of boiling water.

To preserve Gooseberries.—Take any quantity, full grown, but still hard; for ripe gooseberries do not suit so well.—Top and tail them, and put them into bottles—beating the bottles gently on a stuffed stool, to lessen the vacant interstices. Cork and lute them; put them in the copper, separate one from the other, as directed above. Light the fire, and, before the water boils, examine the bottles from time to time, and when the fruit changes colour, and becomes white, draw out the fire, and let off the water. If it be a common copper, without a cock, lift the bottles out of the water with as little delay as may be.

Another way to preserve Gooseberries.—Proceed as above, but don't cork the bottles; and when the fruit begins to change its colour, withdraw them from the water-bath, and having boiling water ready for the purpose, pour it into each bottle, so as to overtop the gooseberries, and fill the bottle half way up the neck; then cover them with a blanket, and when cold, pour into each a small quantity, say half a teaspoonful, of olive oil. After which, cork and lute the bottles. The oil serves most effectually as a hermetic seal to prevent air from reaching the fruit, should the corking prove defective.

(*To be continued in our next.*)

Beautiful Chemical Experiment.

The following beautiful chemical experiment may easily be performed by a lady, to the great astonishment of the circle of her tea party. Take two or three blades of red cabbage, cut or tear them into small bits, put into a basin, and pour on a pint of boiling water, let stand an hour, then decant the liquid into a crystal bottle; it will be of a fine blue colour. Then take four wine glasses, into one put two or three drops of sulphuric acid, or five or six drops of strong vinegar; into another put five or six drops of a solution of soda; into a third put as much of a strong solution of alum, and let the fourth remain empty. The glasses may be prepared some time before. Fill up the glasses from the crystal bottle, and the liquid poured into a glass containing the acid will quickly change colour, and become a beautiful red, that into a glass containing the soda a fine green, and that into the alum a fine purple, whilst that poured into the empty one will, of course, remain unchanged. By adding a little vinegar to the green, it will immediately change to a red; and on adding a little of the solution of soda to the red, it will assume a fine green; thus showing the action of acids and alkalies on vegetable blues.

SPORTING OLIO.

New Maryland Association,

For the Improvement of the breed of Horses.

At a meeting of the Subscribers to this Association, held in pursuance of notice at Barnum's Hotel, on Wednesday the 3rd September, 1828,

THOMAS RUSSEL, ESQ., *Chairman,*
E. L. FINLEY, *Secretary.*

It was RESOLVED, That the first annual races of the Association, take place over the Association Course at Canton, on Wednesday the 22nd October next, and continue for three days, for the following purses, to be run for agreeably to the rules of the Association, viz:

1st Day—Colt's purse, for 3 year's old—2 mile heats,	$150
2nd Day—3 mile heats,	200
3rd Day—4 mile heats,	400

It was also RESOLVED, That this Association be governed by the rules and regulations of the Old Maryland Association, until altered or amended by this Association.

The Association then proceeded to the election of officers for the ensuing year, when the following gentlemen were unanimously elected:

JOHN S. SKINNER, *President.*

Vice-Presidents.

Jacob G. Davies, H. E. Ballard, (U. S. Navy.)
Sheppard C. Leakin, John Thomas.
William Frick,

Committee of Management.

John Ridgely, of H. John Rodgers,
Charles Tiernan, C. S. W. Dorsey,
C. Carroll, Jr. of C. Charles Salmon.
G. Howard, of J. E.

Committee of Finance.

Thomas Russell, J. Stevenson, Jr.
E. L. Boteloor,

Committee of Elections.

George Riston, Thomas D. Johnson,
David Barnum, Edmund Gibson.
G. R. Richardson,

The Association then adjourned.

By order, E. L. FINLEY, *Secretary.*
3rd September, 1828.

☞If the Editors of papers in Virginia and the Carolinas would have the goodness to copy the notice, so far as it respects the arrangement for the next races, they would oblige many of their liberal patrons and the many persons in those states who are paying particular attention to the objects of our association.

It will be seen that the course is open for any horse, mare or gelding; and though the purses are not large, they are sufficient to incite those whose object is rather to establish the reputation, by *testing the power* of a fine horse, than for great gain by a particular race.

The views of the Maryland Association are, what they purport to be: to improve the breed of our horses, by keeping up the pure stock of the bred horse in his highest spirit and greatest vigour, knowing that unless we do preserve that blood for farmers to have recourse to, we can never have the benefit of saddle and harness horses of the best bottom and the finest action. The association calculate that purses of moderate amount, will answer that purpose as well as larger, and though they may not be so inviting to speculators and gamblers, they will be sufficient to tempt gentlemen to train their young horses for the course; and they indulge the hope that when a horse makes a good race, evincing his possession of the great requisites of speed and bottom, the fortunate owner, who will, it is hoped, in most cases, be also the breeder, will then, instead of risking large sums of money on him, either keep him as a stallion, or sell him for that purpose into some neighbourhood where such horses are wanting. It may be expected that any horse or mare, which, on trial, shall run, at three years old, the two miles in less than four minutes, or at four years, the three miles in less than six minutes; or at five years, shall run the four mile heats and repeat in eight minutes, will bring one thousand dollars. We feel persuaded that the legitimate objects of the association would be yet more effectually accomplished by making provision for testing the speed and action of saddle horses in their various gaits—but we are now in too much haste to enlarge, as we shall do, on this subject.

Norfolk Races.

The Norfolk *Jockey Club Fall Races* over Garrison's Course, commence on the 23d inst. The Beacon says that a large number of the most celebrated horses on the turf of the United States are to contest for purses on the occasion.

MISCELLANEOUS.

AMERICAN PATENTS.

[It cannot fail, as we suppose, to be both useful and interesting to our readers to be kept regularly informed of the inventions for which patents are granted from time to time at the patent office, for things *immediately connected with the several subjects discussed and explained in the American Farmer.* In that very valuable work the "Franklin Journal, and American Mechanics' Magazine, devoted to the useful arts, internal improvements, general science, and the recording of American and other patented inventions," edited by a gentleman, whose habits and acquirements eminently fit him for the duties of its editor, and the superintendant of the patent office, we are favoured with a monthly list of patents and short descriptions of their objects and the structure of the machines. From that list we extract from the American patents for July, such as promise utility and improvement to the *farmer and planter and housekeeper.* It will be seen that several Baltimoreans are amongst the patentees, and we hope that Mr. Underwood, the intelligent and enterprising manager of the Orange Farm, will realize a suitable remuneration for an application of canine power, which promises to turn to so many valuable purposes, animal force, which like that of the human race, if not well engaged is apt to employ itself mischievously. "Idleness," says the proverb, "is the nest in which mischief lays her eggs," but we hope, in behalf of the *genuine well bred sporting dog*, who fulfils his calling, that the drudgery of pumping water, churning butter, cutting straw, &c. &c. may devolve upon the "base brood of coward curs, a frantic, vagrant race."]

An improved wind wheel, for grinding grain, and for pumping; Abner Murray, Athens, Bradford County, Penn. July 8.

This is a vertical wind-mill, with sails made of wood, tin, or sheet-iron, the wheel about 20 feet in diameter, the sails to be from 4 to 8 in number, and set at an angle of two and a half degrees. The shaft turns an iron wheel of 2 feet in diameter, and this, two pinions of 8 inches diameter, each of which carries a burr stone for grinding, of 14 inches in diameter. Each pair of stones stand vertically, one of them has a concave, and the other a convex surface. The stationary stone to have a hole in it, one and a half inches from the centre, to let the grain through.

When used for pumping, there is to be a crank to give a nine inch stroke to the piston.

The description of this machine is general, the patentee not informing us whether he claims the whole arrangement, or some particular parts only.

A machine denominated the rotary washer; Calvin Post, Spring Port, Cayuga County, New York, July 15.

There is a cylinder of about 6 inches in diameter extending across the washing tub, or trough. This cylinder is fluted, and is made to revolve by means of a crank; above this, there is a second plain cylinder, having vertical play in its gudgeons; or else a hollow piece, suspended as a rubber, and capable of playing vertically. The articles to be washed are allowed to pass between them, they being held, and turned about by the hand.

It is proposed to add a fly wheel to the cylinder, and sometimes to turn it by means of a treadle and pitman.

This machine has the merit of differing more than usual, both in its form and action, from most of its predecessors, but few of which have been sufficiently long lived to be introduced into society; we shall be happy to hear that this last born of the family is more fortunate. The only washing machine which appears to have received continued approbation, has been the simple, flat board, with flutes, or rollers, against which the clothes are rubbed.

Improved application of power to the common pump; Noah Underwood, Baltimore County, Maryland, July 17.

The power proposed to be employed is that of a dog, or other animal; the main object, it is believed, is to raise water for cattle, &c., upon plantations where it is needed. The dog is placed in a hollow drum, or wheel, like the turn-spit dog in former days; the wheel of course, must be large to increase the leverage. A crank upon the shaft of the wheel, is connected to the pump handle, by means of a jointed rod or pitman. It is the application of this jointed rod which the patentee claims, as having first applied it to the purpose stated.

A machine for thrashing, or clearing grain, from the straw of rice, and other substances; Asa Nourse, Beaufort, South Carolina, July 19.

This thrashing machine resembles, in its form, the common grist mill, but instead of stones, there are two thick framed wooden wheels; these lie horizontally, the lower one, which is 7 feet in diameter, being made to turn by a spindle, which passes through a large eye, or opening, in the upper one, which eye is 34 inches in diameter. The faces of these wheels are furnished with strips of iron, forming ridges which raise ¼ inch above their surfaces. These stripes radiate from the centre, but do not coincide, those upon the upper wheel varying 3 degrees from the centre. The sheaves are put in at the eye of the upper wheel, and the grain is delivered at an opening in the rim. There are some other appendages, as knives for cutting the bands, &c.; but the parts described are the principal.

Improving and facilitating the means of transport, and conveyance of goods and passengers; John I. Reekers, Baltimore, Maryland, July 21.

The specification states, that "this invention or improvement, consists in covering the whole surface on which the transport is to be made, with sheets of iron, or other metal, or composition of metals, or ore, of the requisite thickness, by fixing them on the road, or way, in ready made plates, slabs, or pieces; or by spreading the smelted metals, or ores, over the whole extent of road, or surface intended to be used."

Such a road, it is suggested, may become a substitute for rail-roads, canals, and common roads. How the *plates, slabs,* or *pieces*, are to be fixed and secured, upon a foundation of sand, clay, and soil, we are not informed; but must presume, that the patentee has a clear idea of these things in his own mind: we are still more at a loss, to perceive how he intends to *spread the smelted metals*, or ores, *over the whole extent of the road.* Should he think proper to favour us with clear views upon these points, we shall be happy to lay them before the readers of our Journal.

A machine called the "universal drub," for thrashing, or separating, by rubbing, the seed or kernel of all kinds of grain from the straw; Samson Felton, Killbuck township, Holmes County, Ohio, July 22.

The grain is placed upon an apron, and is carried between a cylinder, and a case where the seed is rubbed out. The cylinder is of metal, punched from the inside, like a grater. The case is perforated with holes, through which the seed passes, whilst the straw is carried off, and delivered from another part of the machine. The patentee claims, 1st. The simultaneous revolving and vibrating motion of the roller and case, producing the necessary rubbing.

2nd. The mode of increasing the vibration when the grain is damp and *vice versa.*

3. The general arrangement as it contributes to these ends.

A self-acting press for pressing cheese, &c.; David Hitchcock, of New York, and Chester Stone, of New Haven County, Connecticut, July 24.

This invention we intend hereafter to give, with the engravings which are requisite to make it properly understood.

Cloth for the boots of stages, and other purposes; Peter Laporte, Augusta County, Virginia, July 28.

This cloth is composed of hemp and wire, the hemp being twisted lightly round the wire, and the whole then woven in the manner of common cloth. This is to be covered with paint, and it is proposed, to use it for boots of stages, for carpeting, sacking-bottoms, pannels, bodies, and tops of carriages, &c.

Machine for feeding cotton-gins with seed cotton; Joseph Eubank, jun., Glasgow, Barren County, Kentucky, July 29.

To feed the cotton gin, for the purpose of cleaning the cotton from the seed, there is to be a feed apron, similar to that used in the machine for carding; this apron is carried forward with the requisite velocity, and at the end towards the saws, there is a roller, or cylinder, extending across the whole width of the apron. This cylinder is set with teeth, or fangs, formed of iron wire, and is made to revolve so as to feed the saws, by carrying the seed from the apron against them.

An improved corn-shelling machine; Philip Grosjean, Louisville, Kentucky. He having resided two years in the United States. July 29.

This shelling machine resembles that of Evans, as is acknowledged in the specifications; that is, there is a vertical wheel, with ridges, or teeth, against which the corn is to be borne by a spring. The patentee proposes to give greater velocity to the wheel than in the former machine, the cog wheel and pinion intended to effect this, being to each other as 18 to 4. This wheel and pinion are fixed in a frame, attached to, but distinct from, that of the shelling wheel. The increased velocity, and the distinct frame, are the improvements claimed.

Curious Structure of the Eye of the Bird and of the Horse.

Birds flying in the air, and meeting with many obstacles, as the branches and leaves of trees, require to have their eyes sometimes as flat as possible for protection; but sometimes as round as possible, that they may see the small objects, flies and other insects, which they are chasing through the air, and which they pursue with the most unerring certainty. This could only be accomplished by giving them the power of changing the form of their eyes. Accordingly, there is a set of hard scales placed on the outer coat of their eye, round the place where the light enters; and over these scales are drawn the muscles or fibres by which motion is communicated; so that, by acting with these muscles, the bird can press the scales, and squeeze the natural magnifier of the eye into a round shape, when it wishes to follow an insect into the air, and can relax the scales when it wishes to see a distant object, or move safely through leaves and twigs. The power of altering the shape of the eye is possessed by birds of prey in a very remarkable degree. They can thus see the smallest objects close to them, and can yet discern larger bodies at a vast distance, as a carcase stretched upon a plain, or a dying fish floating upon the water. A singular provision is made for keeping the surface of the bird's eye clean—for wiping the glass of the instrument, as it were; and also for protecting it, while rapidly flying through the air, and through thickets, without hindering the sight. Birds are, for these purposes, furnished with a third eyelid, a fine membrane or skin, which is constantly moved very rapidly over the eyeball by two muscles placed in the back of the eye. One of the muscles ends in a loop, and is fixed in the corner of the membrane to pull it backward and forward. A third eyelid of the same kind is found in the horse, and is called the *haw;* it is moistened with a pulpy substance, or mucilage, to take hold of the dust on the eyeball, and wipe it clear off; so that the eye is hardly ever seen with any thing on it, though greatly exposed from its size and posture. The swift motion of the haw is given to it by a gristly elastic substance, placed between the eyeball and the socket, and striking obliquely, so as to drive out the haw with great velocity over the eye, and then let it come back as quickly. Ignorant persons, when this haw is inflamed from cold, and swelled so as to appear, which it never does in a healthy state, often mistake it for an imperfection, and cut it off: so near do ignorance and cruelty produce the same effect.

Literary—Premiums.

For the better encouragement of native dramatic writing, the manager of the American Theatre, N. Orleans, offers three hundred dollars for the best Tragedy, in five acts, to be produced by the 1st October, 1829. The successful writer shall also have his benefit on the fifth night.

The second best production shall be entitled to one hundred and fifty dollars, and a benefit on the fifth night.

The pieces offered will be subject to the examination of a literary committee.

The pieces must be forwarded to New Orleans, free of postage or charge to the subscriber.

JAMES H. CALDWELL.

New York, Sept. 10, 1828.

Editors throughout the Union, favorable to the cause of native literature, will please give the above a place in their journals.

An immense speculation is about to be undertaken, at the head of which is said to be M. Lafitte, for the purpose of draining all the marshes in France. You will learn with surprise that there are not fewer than 1,200 square miles of bogs and fens in this country. Government patronizes the undertaking, and taxes on the drained lands will be remitted during 25 years. The Octroi duty on wines entering Paris, which is now 50 francs per piece, is to be reduced to 25; it is thought that twice the quantity will be consumed, that government will loose nothing, but that the wine-growers will derive considerable benefit from the new arrangement. At this moment good Bordeaux wine may be bought at Hamburgh, or Guadaloupe, for 15d. a bottle, when the same quality costs, in Paris, 30d. [*Morning Herald.*

The damages of the late flood in the Connecticut, are estimated at from $500,000 to $1,000,000 A gentleman informs us that the Farmington Canal is in an almost hopeless state in the vicinity of Farmington. Where it passes along the high bank, near the village, not only the embankments on the side towards the river are swept off, but the bed of the canal is washed away to the depth of thirty feet in many places. The culvert, at Granby, is washed away a second time.

An account has been taken, by order of the lords of the treasury, of the number of vehicles passing over London-bridge in the course of 24 hours—the average of which turns out to be between 6 and 7,000.

The "incombustible Spaniard" has repeated his experiment of remaining in an oven, at the Tivoli Gardens, whilst a fowl was roasting. This power of resisting intense heat has been possessed by several persons, some of whom have gone even farther than "the incombustible Spaniard." An Englishman, named Blagden, used to exhibit in a room heated to more than fifty degrees beyond the point of boiling water, so that water and oil were seen through a window boiling by his side, and he remained thirteen minutes in this situation.—The *Globe* (a Paris journal) mentions the fact of two young women at Larochefoucault, who, by practice, had acquired the power of remaining without injury in an oven for ten minutes, whilst meat and vegetables were cooking around them.

When peas, French beans, and similar productions, do not boil easily, it has usually been imputed to the coldness of the season, or to the rains. It is stated in *The Bulletin des Sciences* that this popular notion is erroneous—the difficulty in boiling them soft arising from a superabundant quantity of gypsum imbibed during their growth. To correct this, we are told to throw a small quantity of subcarbonate of soda into the pot along with them, the carbonic acid of which will seize upon the lime in the gypsum, and free the legumes from its influence.

RECIPES.

AGUE AND FEVER.

A cure for the Ague and Fever, that has never failed in five hundred cases.—½ oz. of cloves, ½ oz. of cream tartar, 1 oz. of Peruvian bark, well pulverized. Put them into a bottle of best port wine, and take the decoction or tincture on the well days, as fast as the stomach will receive it. As there are more persons afflicted with the fever and ague than at any former period, (in the opinion of many of the faculty,) the publication of the above recipe may be the means of curing many who now labour under that disorder.

EPILEPSY—SALT A CURE.

A poor fish-woman was seized with a fit of epilepsy in the market, and fell with violence on the ground. Immediately afterwards she was so dreadfully convulsed, groaned so heavily, and became so pallid, that the by-standers concluded that she was just going to expire. Sutherland, the officer, having procured some salt, put a small quantity into her mouth, which almost instantly produced a salutary effect. A second dose was administered, on which the poor woman opened her eyes, rose, took a drink of cold water, and, in a few minutes resumed her business quite well. [*English pa.*

THE FARMER.

Baltimore, Friday, September 19, 1828.

☞The following extracts from a letter from the great and good Lafayette, to the Editor of the American Farmer, written in all the simplicity of a pure and honest heart, have so much connection with the various subjects discussed in this journal, and display the venerable farmer of La Grange in a light so amiable, and so characteristic, that we venture to give them, in the assurance that he will excuse us for what we know will amuse and gratify our readers, as every thing does from the same pen:

My Dear Sir, *Paris, July* 13, 1828.

Your kind letter (May 28,) has been gratefully received. I thank you for the information it contains, and for the care you have taken of the Report relative to the Baltimore and Ohio Rail-road, in which it is needless to add that I feel most deeply interested. Be pleased to express to Mr. Thomas, and the other members of the company, my grateful acknowledgements and warmest good wishes. I am daily looking for news of the arrival of my friend Governor Barbour, in England, and hope he may find time for a visit to La Grange.

Here is a letter from our beloved Frederick. He gives you an account of his health, and his progress, and I have only to add, that he is an excellent very clever boy, and well calculated to make happy his parents and friends.

Permit me to introduce very particularly to you and to our friends at Baltimore, a young traveller, for whom I have much affection and esteem. It is the Duke of Montebello, son to the celebrated Marshal Lannes, who fell gloriously in the last war. He is going to visit the United States, and will sail from Liverpool.

The enclosed letter has been written by my friend and colleague *M. Girod de L'Ain,*[*] a judge of the Paris Royal Court, and a member of the Association of Naz, who possess the finest flock, I think, in Europe. *Naz* is situated in the department de L'ain, near the frontier. It seems to me that the publication of M. Girod's letter in the American Farmer, and a direct correspondence between him and you, may be useful to American agriculture. I send you samples of the Ram and two Ewes the Association have been pleased to choose for me out of their flock, and which are the finest, I believe, to be seen; also a sample of a young Ram born at La Grange. The length of the wool, since the new processes, is no more an object with the manufacturers of France; quality and fineness are wholly attended to.

Our friend Mr. Townsend has sent three turkies, who have arrived in good health; one male and two females; two males, one from Gen. Cocke, the other from York, Pennsylvania, whom you know have been preserved; so that I have now on my farm none but wild males, and two females, that may keep the pure breed.

You know the fine mocking-bird, given by your son Frederick to his young friends at La Grange, is dead. Every tender care has been taken of him; there must be something in the change of climate obnoxious to this matchless bird. The loss has been much lamented.

I have also lost the terrapins. My only way to preserve and multiply them, is to receive a number of those who live in fresh water and on land; to let them loose in a pond intersected by small islands, and let them take care of themselves. The tortoises[†] have not lived; yet they had a better chance. The partridges could not bear confinement; I have let them loose, and think they will multiply. The swan-geese[‡] are in perfect health, male and female, but hitherto have given no progeny. They are fine birds and a great curiosity.

I have much admired the fine samples of wool sent by Mr. Dickinson, (of Ohio) to whom I beg you to offer my best thanks, as well as to the gentlemen who have collected the curious diversity of Indian corn. I thank you for the particulars you are pleased to give in the American Farmer, and beg my affectionate acknowledgements and compliments to Mr. Niles for the precious continuation of his Register. The steam boiler, presented by Mr. J. B. Morris, works admirably well on my farm, and enables me to feed my cattle, my ewes in the suckling time, the fattening animals, and a stock of hogs, either full blooded from your fine pigs, or crossed with the English, and Anglo-Chinese breed. Happy would I be to welcome you on my farm. As I am sending you samples, here is a specimen of observations at the French Institute. I have received a young dog from the Pyrennean mountains, and if I preserve it in growing health, shall send it to you.

My letter has been interrupted by a visit from Frederick, who came to take leave on his return to Fontenay. His health is perfectly restored. I have had the pleasure to see Mr. Cochran. Time is approaching when our boys come to La Grange.

Adieu, my dear sir, most truly
And affectionately, your friend,
LAFAYETTE.

Paris, June 19th, 1828.

My dear General and honoured Colleague:

Understanding that the citizens of the United States, actuated by an enlightened zeal, are turning their attention to the raising of Merinoes and procuring the best rams from our continent, I have thought that the Agricultural Society of Naz, of which I am a member, might open with the Americans a communication beneficial to both. I do not wish, however, to proceed in the subject, without consulting you, my dear colleague, whom so many and such glorious ties connect with that country, and who are better able than any one else to decide whether the reputation of the Merinoes of Naz is deserved, as you have several, selected with all the care that was to be expected from the friendship with which you honour me; and among which there is one which I would pronounce, but for the fear of appearing presumptuous, the finest ram in Europe. Permit me, therefore, to ask your advice on the subject of this design, and to solicit, if you think it practicable, your assistance in carrying it into execution. Accept, I pray you, my thanks in advance, and pardon me for imposing so much upon your kindness.

Be assured, my dear colleague, of my respectful affection. GIROD DE L'AIN.

The samples may be seen at the office of the American Farmer—and the Editor wishes a few samples of the *finest* wool from sheep *yeaned and reared in America.* Any gentleman possessing sheep yielding wool of *extraordinary* fineness, will oblige us by small specimens, with memoranda as to the origin of the original stock. These specimens will be sent to M. Girod, and will, perhaps, shew him, that whilst we are grateful for his good wishes, we have now got individuals from which to propagate a race equal to any in Europe; we say perhaps, for that must depend on the samples we can supply. The longer the *stock* of the sheep from which such samples may be selected has been in the country, the better they will serve to exhibit the influence of our climate and the success of our management.

Editors of papers who may see proper to copy the above, will enable us the more fully to reciprocate the proffered interchange of good offices. Philosophy and benevolence are of no country, and know no boundaries in their desire to promote useful knowledge and the well being of society.

☞ The Ninety-first Anniversary. To-morrow the venerable Charles Carroll, of Carrollton, will have completed his ninety-first year, and once again his accomplished and affectionate family, with a party of his devoted friends and neighbours, will assemble at the Manor, to celebrate the birth day of the only living person who signed the proclamation of American Independence. But it is not alone within the gray walls of the Manor-house that blessings will be invoked upon this honoured model of constancy and patriotism in times that tested the hearts of all; for, as the glorious fruits of his penetration and firmness have arisen from the Atlantic to the Pacific ocean, so shall arise the prayers of a grateful posterity; that many more equinoctial seasons may find him and leave him in his wonted health; diffusing his own cheerfulness to all around him, assured as we may be, that lose him when we may, he will go to share with his worthy compeers the blessed judgment of—"*well done thou good and faithful servant.*"

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[*] A distinguished member of the Chamber of Deputies, and one of the leaders of the liberal party.

[†] These were from Florida.

[‡] Sent by S. W. Pomeroy, Esq. of Brighton, Mass. [*Ed. Am. Far.*

☞The very intelligent communication of Mr. Gibbes, on our first page, will be read with pleasure and profit by our Southern patrons. It would have been inserted before, as we had seen it so favourably noticed by competent judges, but that we did not receive that number of the Southern Agriculturist in which it first appeared.

WOOL STAPLING AND SELLING,

An Establishment provided for, in Baltimore.

Wool.—By a late Poughkeepsie journal we learn that there were several gentlemen from abroad, visiting the different towns in the county of Dutchess, to examine the lots of wool, and make purchases. The prices are quite as good as last season, and the demand more brisk.

We thought the very material alterations that took place in the tariff bill, as reported by the committee, the price of wool would have inevitably declined; but with the bill as amended, we regret to observe that the price of this great staple has not advanced, the more brisk "demand" spoken of, we apprehend, is caused by a hope in the manufacturers that they will not be compelled to stop their works suddenly, as they feared would be the case last year: but it will require some time to ascertain the operation of the new law, and what advantage the British will take of certain of its provisions, which seem to have been made for their accommodation.

Since the preceding was written, and as if in *practical* support of the view just taken, we learn that Mr. *Isaac Bannister*, whose warehouse is in South Eutaw, near Market-street, Baltimore, has resumed his old business as wool-stapler—and will at all times, purchase wool, at a fair market price, of growers and others. Hitherto the farmers have complained not only of the low price of wool, but of having no market for it. The last at any rate, will be relieved by the new establishment of Mr. Bannister, whose whole life has been spent in sorting and manufacturing wool. We esteem him as most happily fitted for carrying on this business, and have no doubt that all who deal with him will be pleased—except as to the *price* of their wool, which will be regulated by the *general market*, not by him. It is pleasant, however, to be able to inform our numerous friends that this new business has been commenced at Baltimore by a competent and liberal gentleman.

[The above, from Niles' Register, affords us an occasion to observe that such an establishment conducted by a person *well qualified*, has been much wanted in Baltimore, and we have every reason to believe that Mr. Bannister possesses the requisite qualifications in an eminent degree, so far as depends upon judgment and experience in the stapling and manufacturing of wool. We recollect that some years since we wrote to Mr. Young, a most intelligent and respectable manufacturer on the Brandywine, to notify him of his having been appointed by the Maryland Agricultural Society, one of the judges to award their premiums for the finest wool. Mr. Young answered to this effect: that he regretted he could not attend himself but that Mr. Bannister would officiate for him, and that in *him* the society would have the services of one in whose *superior* judgment and experience the society might place *especial confidence*. Now, we are happy to see that Mr. Bannister has established here a regular warehouse for assorting and selling wool of all kinds. On the subject of the price, we are not aware to what extent that, or any other staple production of agriculture has been benefitted *by the tariff*. The borthens of the tariff are felt if they are not *palpable and tangible*—its benefits are, we believe, at least so far as concerns the wool grower rather prospective. The farmer is persuaded to live in hope, but "hope deferred maketh the heart sick." We should be glad if some clear headed, sound judging *practical* man—some HOPSON for instance, would give us his views and illustrations of the effect of the tariff upon wool—a comparison of prices for a series of years, with the policy and provisions of the laws during the same period—the prospect of that branch of husbandry, and keeping out of view that all absorbing question of *who shall be President*, with which every subject is forced into connection, though often the most violent and unnatural.]

As the impression which has been made in England, by our new tariff, is a matter of some consequence for the United States, we copy the following editorial remarks of the London Courier of the 19th July.

"The discussion last night upon the American tariff, involved the consideration of a point of the utmost delicacy and importance, viz: what ought, with a view to public honour and advantage, to be the policy of the British government towards a country which virtually excludes British manufactures from its market? That America will be the principal sufferer by the selfish prohibition she has adopted, is a truth of which, at no distant day, she will be convinced by experience.—That, however, is an evil of her own seeking, and will not satisfy us for the inconvenience, not to say the injury, she, at the same time, inflicts upon British commerce. The truth is, that it is not to our dignity to beg and pray for a connection where it is not desired, nor to our interest to buy where we may not sell. If America will not take our woollens, cottons, and hardware, we must not take her tobacco, rice, cotton, and turpentine. Nor is this merely the *lex talionis*, it is the law of necessity. America may fancy—perhaps feel—that it is an act of retribution; but, on our part, were we ever so conciliating, the principle would, in spite of our good humour, force itself into practice. We *must* buy where we can sell. The spirit of commerce is exchange; and though congress and parliament were to conspire otherwise, there could be no commerce between the two countries without it. Perhaps our transatlantic brethren may think that they stand on a vantage ground: that although they refuse our manufactures, we must still take the same quantity of their produce, because we cannot obtain it elsewhere. If so, they are egregiously deceived both in the fact, and in the reason for it. In the first place, if we could, we would not, take the same, or any thing near to the same quantity of their produce; and in the second, we should speedily take none whatever, because we could procure, even in our India possessions, their three principal staples, viz.—tobacco, rice, and cotton—on better terms, and with a greater degree of certainty, than by trading with an exclusive and capricious republic.

"Mr. Peel seems to entertain a hope that the Americans may yet relax. We hope so too—but during the last five years of the convention, the prohibitory spirit has been constantly making itself more and more manifest; and its full display, in this tariff, leaves no doubt that, erroneous as it may be, it is nevertheless fashionable in the United States at the present moment."

"The news of the passing of the American tariff has cast a general damp on business in the whole of the clothing districts in the north. Already the manufacturers have imposed a check on their powers of production, which had recently been exerted, in many instances, both night and day."

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c ; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle.Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36 Pratt-st., Baltimore.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3 00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Amount of Inspections the last week, 226 hhds. Maryland, 21 Ohio.

Flour—white wheat family, $7.00 *a* 8.00—superfine Howard-street, 6.00 *a* 6.25; city mills, 5.50 *a* 5.62½; Susquehanna, 5.50—Corn Meal, bbl. 2.50—Grain, best red wheat, 1 00 *a* 1.15—best white wheat, 1.15 *a* 1.25—ordinary to good, 1.00 *a* 1.10—Corn, .35 *a* .38—Rye, .40—Oats, bush. .20 *a* .22—Beans, 1.25—Peas, .50 *a* .60—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Wheat has taken a considerable rise since the last quotations, and is still advancing. This rise is caused by information of the failure of the crops in England, and Canada, as also a certainty of not half a crop, either in quantity or quality in Maryland and the adjoining states, viz: Virginia and Pennsylvania, as also New York. Corn is much sought after, and it is confidently expected will advance.

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AGRICULTURE.

Papers directed to be published by the delegation of the United Agricultural Societies of Virginia.

A communication from Dr. William J. Cocke, read before the Agricultural Society of Sussex, on the 14th May, 1822.

Wishing to elicit from others information on the following subjects, I am induced to offer for the consideration of the society the following crude observations on, *The proper temperature of Soils: The comparative advantages of Green or Dry Vegetable Matter ploughed into Land, and the application of all other Vegetable and Animal Manures.*

Proper Temperature of Soils.

As far as my limited researches into the science of agriculture have extended, I have not been able to find a single instance in which, the proper temperature of soils has been the particular subject of any essay—nor has the subject excited that degree of attention which in my humble opinion it eminently deserves. It is universally agreed, that a portion of heat is essential to the amelioration of all soils, and the growth of every vegetable; but what that degree is, has not yet been ascertained.

The estimated temperature of the earth is about 48 degrees of Fahrenheit's Thermometer, but as the three kinds of earth, Silicious, Calcareous and Aluminous, which are considered necessary to the fomation of perfect soil, differ materially in their powers of conducting the principle of heat, (or caloric,) we may rationally infer, that wherever the composition of the soils is considerably altered in relation to the three kinds of earths, that the temperature is likewise materially affected. The first of these earths is a rapid conductor of heat, the second moderately so, and the third a very bad conductor; and their affinities for moisture seem inversely with their powers of conducting heat. From this circumstance we may conclude that neither of the three can be left out of a soil without injuring its aptitude to the retention of a due degree of heat and moisture.

Thus we find that wherever sand very much predominates in a soil, its temperature becomes so high and its affinity for moisture so small, that it dissipates all other matters necessary for the growth of plants. Wherever calcareous earth predominates to excess, in a finely divided state, (from its power of being dissolved by water and its antiseptic powers,*; it becomes so hard as to resist the roots of vegetables, consequently this is the most useless of all soils. Again: a soil in which clay predominates to excess becomes so cold and moist that vegetable matter ploughed into it remains so long without fermenting as to be nearly useless to the succeeding crop. To this it may be said, that a soil composed properly of sand and clay would remove the above objections. True: but these two earths have no chemical action on any thing which comes in contact with them. The different acids formed in the process of fermentation are left free in the soil, and act manifestly to the disadvantage of all vegetables fit for the consumption of man or animals. Water is likewise a very bad conductor of heat, so much so, that a soil retaining an undue quantity, becomes cold and sterile.

Dry or Green Vegetable Matter Ploughed into Land.

But few subjects deserve more extensively the attention of farmers than this, particularly in this part of the country, where we are compelled to depend principally on the spontaneous production of the soil for the nourishment of the future crops; and there is no subject treated of, in the books on agriculture which I have had an opportunity of reading, on which there is a greater contrariety of opinion. In the elements of Agricultural Chemistry, by Sir Humphrey Davy, we find the following observations, p. 249. "When green crops are to be employed for enriching a soil they should be ploughed in, if it be possible, when in flower or at the time the flower is beginning to appear, for it is at this period that they contain the largest quantity of soluble matter, and that their leaves are most active in forming nutritive matter."

Again, in Sir John Sinclair's Code of Agriculture, appendix, page 374. "When manure is deficient, the ploughing in a green crop of peas, of buckwheat, &c. has often been resorted to: but this practiceis not found to answer. Buck-wheat was ploughed in for several years in Lincolnshire as a manure but ultimately given up, as doing no good."

This sentence is immediately followed by a note by the American editor. "Very different is the result of practice in this country. The superior condition of much of the old tillage land of Pennsylvania may be fairly attributed to turning in green crops of clover and buckwheat."

In the foregoing extracts we find evidence on both sides of this important question which leaves the farmer, who reads for his improvement, at a loss to which side to give credence; nor can his own experience settle the question, until he has fairly experimented on every variety of soil that comes under his management, without having reference to the principles heretofore laid down.

Vegetable matter (other circumstances being favourable) will commence fermentation at the temperature of 55 degrees of Fahrenheit's thermometer, and the disposition to fermentation increases with increased temperature until the temperature arises to 80 degrees. Sixty-seven and a half is the middle of these two extremes; which we will take as the standard degree at which fermentation would go on to the greatest advantage in the soil.

Should this and the foregoing propositions be true, we may conclude, that whenever the temperature of the soil rises above the standard (or 67½ degrees) it will be necessary to plough the vegetable matter into the land in that state, (dry,) best calculated to resist fermentation, and whenever it falls below the standard temperature, it will be best to plough it in, in that state (green) which is best calculated to promote fermentation. This brings us to the conclusion, that all the opinions heretofore quoted are correct as far as they were governed by the particular soils and circumstances under which they were formed: but incorrect in a general point of view, as a standard from which a farmer should draw his opinions for the management of his farm.

In the spring of 1819 I subjected these opinions to the test of one experiment—on two pieces of land about equal fertility, but one a warm light soil, and the other a close cold adhesive soil: on each of these a quantity of dry vegetables was put, under circumstances as nearly equal as I could make them, and they were both tended in corn in the same way. The corn on the light land was immediately benefitted and continued to improve throughout the year, whilst that on the other received no apparent benefit, nor has the land of the last been benefitted on a ratio half equal to the first.

On the application of all other Vegetable and Animal Manures.

I will introduce this subject by another quotation from the pen of Sir H. Davy, page 6. "There has been no question on which more difference of opinion has existed, than that of the state in which manure ought to be ploughed into land, whether recent or when it has gone through the process of fermentation, and this question is still a subject of discussion; but whoever will refer to the simplest principles of chemistry, cannot entertain a doubt on the subject. As soon as dung begins to decompose, it throws off its volatile parts, which are the most valuable and the most efficient. Dung which has fermented, say as to become a mere soft cohesive mass, has generally lost from one third to one half of its most useful constituent elements: it evidently should be applied as soon as fermentation begins, that it may exert its full action upon the plant, and lose none of its nutritive powers."

This sentence would have been sufficient of itself, to point out the proper time at which manure, composed of animal and vegetable matter should be applied, and no doubt there would have been a greater unanimity of opinion on this subject, was there not some other circumstance affecting it, than its particular state of fermentation at the time of its application. This circumstance I conceive to be the temperature of the soil, nature's great laboratory, and it is to this we may attribute the great diversity of opinion on this otherwise simple subject. But however diversified this opinion may be, we can discover a beautiful concatenation of idea in the several authors on agriculture. Thus wherever one recommends the use of green vegetable matter, he will likewise recommend the use of well rotted manure, and where one recommends the use of dry vegetable matter he will advise undigested manure.

This is extensively shown in the writings of Judge Peters, and Col. John Taylor, the first recommending green vegetable matter and well rotted manure, with other means of promoting decomposition, such as lime, burning, &c. which shews that it is necessary to encourage decomposition on his soil: whilst on the other hand, Col. Taylor recommends dry vegetable matter, and undigested manure, shewing that the land on which he operates has the power of rotting whatever is ploughed into it to excess, which renders it necessary to make use of such applications as are best calculated to resist fermentation and evaporation.

The foregoing observations are respectfully submitted to the consideration of the society, under the hope that some member more competent will improve upon them, by

WILLIAM J. COCKE.

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* This power seems to be reversed when the quantity does not exceed 15 or 20 per cent.

ORCHARD GRASS,

Suitable to a Southern Climate.

Extract of a letter from T. S. Pleasants to a friend in Maryland,

Beaverdam, Va. 8th mo. 17th, 1828.

Dear Friend: In reply to thy inquiries respecting my experience in the cultivation of Orchard Grass, I can state that I have had it for several years; and it is my decided opinion that it is the most valuable grass I am acquainted with. It appears to be better adapted to our dry climate than any other species. It keeps green, and of course affords pasturage, and that of excellent quality, during the whole summer. I have a variety of soil on my farm—some being gray, some of chocolate colour, some red, and some dark. My land is generally pretty stiff, and on this kind the orchard grass, and indeed every other, succeeds best. It is not apt to live on the red land, from the circumstance of its being more liable to be thrown up by the frost in the winter. On the light land it is more apt to perish by the drought during the *first summer*—but wherever it survives the first season it will continue to live through all weather and all grazing. The subsoil or foundation of my land is mostly a stiff, tenacious red clay—the rest is a mulatto clay which is generally under the gray land. I have usually sown the seed in the fall with my wheat, which I think is much preferable to spring sowing, as the greatest and indeed only trial is on the young plants during the first summer. I cannot entertain any doubt that it would do well if sown in the fall in South Carolina, because their winters are so mild as seldom to suspend the progress of vegetation; and the plant would thereby get sufficient root to withstand the drought.

I hope the above information may prove encouraging; and it will be a source of much gratification if it should be the means of causing one bushel of seed to be sown in that state; which if it succeed, will open to view a new source of profit and independence; and tend to promote the interests of the southern country much more than all their inflammatory resolutions.

Perhaps it may comport with the spirit of thy letter to mention one or two other grasses that would, I think, succeed in South Carolina. I mean the tall meadow oat, and feather grass. I have cultivated both for many years, and they are very desirable for late and early grazing. They put out earlier and continue to grow later than the orchard grass, though they are deficient in the valuable property of the latter in keeping green in the summer. The feather grass (appropriately named from its velvet softness) was I believe introduced here from North Carolina, where, from accounts, it is prized very highly. Stock appear to be fond of it where they even have choice of several kinds. They are much less fond of the oat grass, which indeed is only valuable for winter grazing, of which it affords a great abundance.

P. S. I think the orchard grass, and indeed every kind, is more certain to live on *gray* land than any other.

SALIVATION OF HORSES—PUMPKIN-SEED OIL.

Mr. Skinner, *Red-House, N. C., Sept.* 14, 1828.

I have noticed frequent inquiries being made in your very valuable paper, concerning the cause and origin of a disorder which horses are subject to, which we call in this section of country—the salivation of horses.

It is a subject of deep importance to the owner of that valuable animal to discover, if possible, the true origin of this disorder, which that noble animal are more or less subjected in many parts of the United States. It is a laudable object in any person, to endeavour, if possible, to discover and find out a remedy for any disorder which this noble animal is subject to. I cannot better enforce my ideas upon this subject, than to send you an article upon the subject, extracted from the Western Review, written by C. S. Rafinesque, professor of botany and natural history in Transylvania College, Ken. This article is entitled to great respect, as it is written by a gentleman of acknowledged talents. It contains much valuable matter, and many useful hints as regards this disagreeable disorder. I also send you another article upon the subject, "on the oil of pumpkin seed," extracted from the same work, and written by the same gentleman, which I have no doubt will be of use to some of your friends. As it regards our crops in this section of country, I cannot speak in very flattering terms.—The crops of wheat are very indifferent, owing to the extreme warm winter, and to the great quantity of rain which fell in the commencement of the spring. There will not be a half crop of tobacco made in this county, owing to the coolness of the spring and the great scarcity of plants. The crops of corn are very good, and cotton very promising.

If you think these pieces will be of any use to your patrons and friends, you will please to insert them in the American Farmer.

Yours, very respectfully,

JAS. W. JEFFREYS.

On the Oil of Pumpkin Seeds.

To Dr. C. L. Seeger, Northampton, (Mass.)

Your inquiries respecting pumpkins, which have lately reached me, I hasten to answer to the best of my knowledge.

I understood that pumpkin seeds were pressed like rape seed, and of course cold: when I added "*or like flax seed,*" it was because I had never seen flax seed or linseed pressed warm after roasting, as you say it is done with you.

Pumpkin seeds, being very oily, and containing thin oil, require no heat to help the effect of the press. They will yield their oil to the press as easily as almonds, walnuts, and seeds of the melon tribe.

The Harmonists press this oil in the press used for rape seed oil.

I do not think that the pumpkin seed oil can be employed, like linseed oil, for painting. It is too thin and fluid, but it will answer in the instances where walnut oil is employed, being similar to it in that respect, although otherwise much sweeter and less desecative.

Pumpkin bread and cakes are much used in the interior of the state of Kentucky, as pumpkin pies in New England. The bread is made either by itself or mixed with corn meal, by kneading pumpkins either raw or boiled, and baking them immediately afterwards, without any addition of yeast. It has, therefore, a great similarity to corn bread, and is eaten either warm or cold. It is very sweet and of a reddish colour: I cannot say it is very palatable to me, but those that are used to it like it well. You know that corn bread is not liked at first by many persons. I think that the best pumpkin bread is that made by uniting equal parts of corn meal and boiled pumpkins.

Respecting the cultivation of pumpkins, I can hardly give you any additional information. Their culture is well understood all over the country, and all the farmers know how to avail themselves of the facility which they have of growing among corn, without injury to either crop. I do not conceive that any positive advantage might result from their separate cultivation. But manures might be highly beneficial in either instance, and would increase the crops.

I remember the following additional uses which may be made of pumpkins:

1. The cakes, remaining after the oil is pressed from the seeds, are eaten greedily by cattle and hogs.

2. In Europe, they make good preserves of pumpkins, by cutting them in slices and boiling them for a long time in strong syrup of sugar.

3. In the south of Europe, a very good soup is made by mashed or diluted pumpkins with oil, butter, or broth. This dish is called *Furlata* in Tuscany. Rice is often added to it.

4. The hard skin of pumpkins, if uninjured, may be used for pails, buckets, baskets, &c. The pumpkins may be made to assume almost any shape, by being confined while young, in wooden or hard vessels, which they will fill gradually, moulding themselves to their shapes.

I remain, respectfully, yours, &c.

C S. RAFINESQUE,

Professor of Botany and Nat. History.

Transylvania University, Sept. 10, 1819.

On the Salivation of Horses.

By C. S. Rafinesque.

This disorder frequently attacks horses in many parts of the United States. It is well known to consist in an unnatural effusion of saliva in a watery state, flowing often with rapid succession, and debilitating exceedingly the animals subject to it. Cows, also, have been known to be slightly affected by the same disorder; but no other domestic animals.

Various conjectures have been formed on the cause of this morbid affection, some of which are rather ludicrous if not extravagant. Such, for instance, is that which ascribes it to a spider swallowed by the horses! But I am not aware that any one has published as yet the real cause; and the knowledge of a speedy remedy seems to be still more wanted.

Being enabled to point out the true cause, and to offer a remedy, I venture to publish both in the expectation of contributing thereby to lessen and prevent the injury arising from neglect and accident.

I am happy to mention that I am indebted to my worthy friend, Mr. Bradbury, for the leading facts in this statement. We both agreed in conjecturing properly on this subject; but he had the advantage to ascertain the facts by actual experiments, and to point out the proper cure.

Two kinds of weeds, which grow occasionally in meadows and pastures, produce this disorder, whenever they are accidentally eaten by horses and cattle, together with clover or grass! Sheep and hogs never eat them. The first and the worst is the *Euphorbia hypericifolia*, a small milky plant with opposite smooth leaves and very small white flowers.—The second is the *Lobelia inflata*, or asthma-weed, a larger plant, with alternate hairy leaves, blue flowers and swelled seed vessels. Both have the leaves ovate, oblong, and slightly toothed.

They both blossom at the end of the summer, when of course they are largest and most detrimental. Being mixed with the second growth of clover and grass, they sometimes become entangled thereto, and are eaten by horses, who would probably reject them otherwise. They may likewise become mixed with the second crop of hay, and be eaten with it by horses. Hence has arisen the vulgar opinion which ascribed this disorder to the second growth of clover.

Both the above plants have energetic properties. All the species of the genus *Euphorbia* are strong drastics, and the *Lobelia inflata* is little inferior to said genus in energy; it has been usefully employed in the cure of asthma and other disorders: it was one of the Indian medical plants. They produce a slight salivation even in man.

Some other plants may have similar salivating properties, but the two above mentioned are the most common; being found almost all over the United States. They are not uncommon in Kentucky.

By attending to this, it will be easy to prevent the disease: since they are both annual plants, which may easily be destroyed in the meadows, by pulling them up before they ripen their seeds. Should they grow too thick, horses and cattle should not be allowed to pasture where they grow, and the second crop of hay should be cut rather early, (when the weeds are in blossom,) and burnt on the ground.

Should the horses and cattle happen to eat them notwithstanding, and be attacked with the salivation, they may be cured in a single day by feeding them plentifully with cabbage leaves, which appear to be an effectual antidote for this peculiar disorder.

If no cabbages should be at hand, the leaves of turnips, radishes, mustard, and such other plants of the cruciferous tribe, might probably answer equally as well.

I venture to hint that cabbages and the cruciferous plants might, perhaps, become an efficacious remedy in the morbid salivation brought on men by an excessive use of mercurial preparations, tobacco, &c. It is by similar analogies that the materia medica is often enlarged, and effectual remedies are discovered, or succedaneous palliatives adopted.

It is my wish that these facts, conclusions, and hints may become useful, since the constant aim of science should be, to apply its extensive resources to the practical benefit of our fellow beings. And such, I trust, will always be the ultimate objects and results of my pursuits.

(From the Glasgow Farmer's Register.)

ON GROUND BONES AS A MANURE.

Gentlemen,—We believe it will not be a matter altogether void of interest, to the greater part of your readers, to know something of the success of the Bone Grinding establishment, erected last year by the subscribers, for the supplying of the agriculturists in this district, with bone manure. It is, perhaps, one of the best proofs of its success, that the obtaining of a sufficient supply of bones is now a matter of much more concern to us, than the obtaining of orders. If ever we had what might be called a doubt of the success of this establishment, it is now entirely dispelled by the repetition of orders from those who made trial of our bone manure last year. But, being aware that we would be considered to be much more interested in the sale of the manure, than the success of the crops, we give the following extracts from a letter obtained from a gentleman, upon this subject, who states in his preamble, "if any person wishes to know from whom these facts came, you may refer them to me, and I will be glad to tell them all I know upon the subject.

"I used your bone dust last year for Swedish turnips, at the rate of forty bushels per acre, put in the drills along with the seed. Upon the same land I had some growing with dung, allowing forty square yards to the acre; I had likewise some drills manured with burned turf, at the rate of fifty square yards to the acre. The turnips from the bones proved a most excellent crop, and were quite equal, if not superior to those grown from the dung, and they were very much superior to those grown from the burned turf."

"My father used a good deal of bone manure in his garden, and the produce was most abundant."

"Mr. Kirkman Findlay uses it to a great extent, and with great success. In short, I have never heard any one object to it, who has really given it a fair trial."

When we last addressed you upon this subject, we had frequently heard it reported, that the decomposition of bones was so slow, yet in effect so powerful, as that the effect of one good dressing with this manure, would be quite apparent upon the land for twelve or fourteen years. This had so much the appearance of being an exaggerated statement, and our evidence in support of it so slender, that we could not, at that period, venture upon giving it publicity. We have since, however, obtained such a combination of corroborative evidence, from such respectable quarters, as has removed from our mind the least doubt of there being any exaggeration in the statement.

The gentleman above named, who, we believe, was the first to introduce this manure into the west of Scotland, states, that however incredible this statement may appear, the experience he has had of bone manure, induces him to believe it.

The giving a place to this letter in the first number to be published of your useful Register, will very much oblige, sirs,

Your most obed't serv'ts,

M'DONALD & POYNTER.

Glasgow, March, 1828.

ENGLISH PATENTS.

Patent granted to Henry Aspney Stothert, *of Bath, Founder, for improvement on, or additions to, Ploughs.—Dated April* 4, 1827.

The plough represented in the drawing of the specification of this patent, has two wheels under the head of the beam; one of which, that is intended to go on the unploughed part of the field, is smaller than the other; and has besides the axle of this wheel, fastened to a dove-tailed block, that is made to move up and down in a similarly shaped vertical groove, as required, by a vertical screw that turns in the solid dove-tail, and has a winch at its top, which, besides its usual office, is made to serve as a stop to prevent the screw being moved from its proper position, by a pin that passes downwards through its handle, which comes in contact with the frame work to which the wheels are attached, when not drawn upwards, so as to permit the winch to move above it.

At the upper part of the same frame work, but nearest to the side next the large wheel; a nut turning on another vertical screw, sustains a metal ball, that is embraced by a socket, which is attached to the head of the beam by a collar joint, that admits the beam to be moved round its own axis, while the ball and socket joint allows of a circuitous motion horizontally; and as the regulating nut of this latter screw is raised or lowered, the ball that is attached to it elevates or depresses the head of the beam, and thereby determines the depth to which the share enters the earth. The wheels, and the frame work mentioned, and, indeed, all the other parts of the plough, except the beam and handle, are made of iron; we only mention one handle, because but one is represented in the drawing, though some parts of the text make the intention of this doubtful.

The part to which the horses are attached, and which is somewhat similar to the same part in common ploughs, is fastened to a short horizontal bar, through which two vertical bars pass, to which it is fixed by moveable pins, for which holes are provided in the bars; by means of which the point of draft can be raised and lowered, as may best suit the height of the horses; and from the parts just described, a connecting rod proceeds to the body of the plough, which has a short piece fastened to it that joins it to the beam also, at about one third of the length of this latter from the coulter.

The turn-furrow of this plough is an iron plate, curved into a form somewhat similar to the mould boards of the most approved ploughs, but which differs from them in having its curves so constructed; that a ruler or right line applied to any part of it, either vertically or horizontally, when it is in its proper position, will touch its surface in all parts. This plate has one set of perforations made through it that are long and narrow, to admit the air to pass, which the patentee states will have the effect of preventing the earth from sticking to it; and another set that may be either square or round, by which the iron stem of a short curved blade or knife, may be fastened to it in different places by a nut, so as to project from it horizontally at right angles to cut the furrow into slices; two or more of these knives may be used at the same time, to increase the number of the slices as required.

All the apparatus described may also be used with ploughs that have only a single wheel.

Specification of the Patent granted to Henry Constantine Jennings, *of Devonshire street, Portland Place, in the county of Middlesex, Practical Chemist, for certain improvements in the process of Refining Sugar.—Dated October* 22, 1825.

To all to whom these presents shall come, &c. &c. *Now know ye,* that in compliance with the said proviso, I, the said Henry Constantine Jennings, do hereby declare the nature of my said invention to consist in a rapid and effectual mode of depriving raw or muscovado sugar of its colouring matter, by means of rectified spirits; and in further compliance with the said proviso, I, the said Henry Constantine Jennings, do hereby describe the manner in which I perform my said invention, by the following description thereof, (that is to say,) I wash raw or muscovado sugar in rectified spirits of wine, rum, brandy, or any liquor being principally alcohol, which has very little affinity to saccharine matter, or sugar, and a great affinity for colouring matter, water, treacle, &c., of which the impurities of raw or muscovado sugar consist; I use any conical vessel holding from 500 to 1000 lbs., having a wire copper guage or perforated bottom; and I assist the process, by using all and every of the well-known means whereby liquids are made speedily to percolate through solid substances, whose parts are not in actual contact; these means are hydrostatic, hydraulic or hydropneumatic. When any spirit is passed through the mass of sugar, so as to drop no more, I pass about 30 gallons of saturated sirop through the mass of sugar; this removes all, or nearly all the spirit of wine, and leaves the sugar only moistened by the sirop, and ready for putting into the hogshead. The spirit, or rum, that has combined with the colouring matter and water, &c. may be used again over inferior sugars, and after it is very thick, it may be rectified, and the spirit re obtained in an uncombined state, without much loss. Now whereas, I do not claim as any part of my invention, either the conical vessels before described, or any part of the apparatus to be used in the process of refining sugar as aforesaid: but I only claim as my invention, the application of rectified spirits, being principally alcohol, for that purpose, such rectified spirits having properties peculiarly adapted to the said purpose, and performing the operation of refining more rapidly and effectually than any liquor now in use for that purpose.

And whereas, such my invention, being to the best of my knowledge and belief, entirely new, and never before used within that part of his said Majesty's United Kingdom of Great Britain and Ireland, called England, his said dominion of Wales, or town of Berwick-upon-Tweed, nor in any of his said majesty's colonies or plantations abroad, I do hereby declare this to be my specification of the same, and that I do verily believe this my said specification doth comply in all respects fully and without reserve or disguise with the proviso in the said hereinbefore part recited letters patent contained: wherefore, I hereby claim to maintain exclusive right and privilege to my said invention.

In witness whereof, &c.

(From Poulson's American Daily Advertiser.)

ON MANURING LAND.

To the Farmers, especially to those of Pennsylvania and of States bordering on it.

It has long appeared to me, that you practise an exceedingly erroneous method in the *manuring of your land.* Although the season has now all but too far elapsed for these remarks to tend to lessening the evil, yet, as it is "better late than never," I shall proceed:—Your erroneous practice alluded to, is, that of hauling out your manure and laying it in small heaps during a very warm season of the year, (August) exposed, of necessity, to the parching rays of the sun which exhausts one-fourth part of it at least, thereby occasioning you a very great loss in the manure, and in the labour of hauling it out, and, of course, the crop which follows is much diminished in quantity from what it might be under other modes.

It has long since been ascertained that the quantity of water exhaled from the surface of the earth by the sun in warm weather, is very great.—Say the lowest calculation, during summer months, not less than 1500 gallons per acre per day.

Now, supposing that each of the small heaps of manure, as they lie shot out of the cart, to be 4 feet square on the surface of the ground, and the exhalation or evaporation by the sun, during August to be at the rate of 1500 gallons per day per acre, and the acre to be 4840 square yards—each square yard of ground must emit about one third of a gallon of fluid per day—each small heap of manure occupying about, or nearly two square yards of surface, would yield nearly two thirds of a gallon of fluid, for each day it remains exposed to the direct rays of the sun—And supposing the manure to remain in these small heaps but one week before they are spread and covered over by the operations of ploughing and harrowing, and it may often be observed to remain much longer than a week—each small heap of manure must lose four gallons of its fluid in a week, or 32 lbs. weight of the best part of its substance. I will suppose a cart load of manure, hauled by two horses, to weigh twelve hundred weight and to be distributed into ten small heaps, in the field, each heap would weigh about 120 lbs. which, by remaining so long exposed, loses one fourth of its best parts. But, although *calculations*, as above, only show the loss of one fourth, or one entire load of manure in four; yet, practical remarks would, I think, make the waste much greater—for, we may observe the straw, &c. of manure so spread, to become totally dry and exhausted.

In my opinion, the best mode of bestowing manure on land, is, for the dung cart to follow the plough, and to spread it in very small heaps in the furrow last made—then, as the plough returns, it would cover the manure by the sod next turned up—cross plowing and harrowing would afterwards incorporate the manure with the soil, and preserve the former from the principal part of that exhaustion which, in the present mode, wastes so much of what is so valuable to the farmer.

The chief, or only change, then in the mode of applying manure, is, to have the dung cart and the plough going at the same time.

STAT NOMINIS UMBRA.

NEW ENGLISH CORN LAW.

Scale of Duties payable on foreign Grain, Flour and Meal, when imported or when taken out of bond (at the option of the importers or owners,) for home consumption; by the Act 9th Geo. IV. cap. 60, passed 15th July, 1828, which repeals all previous acts relating to the corn trade; the averages to be stated weekly in the London Gazette for the six preceding weeks, by the imperial quarter, and to regulate the duties for the week immediately succeeding the receipt thereof, in each port respectively.

Wheat, per imperial quarter.				Barley, Maize and Buckwheat, per im. qr.				Rye, Beans and Peas, per imperial quar.				Oats, per imperial quarter.			
Average Prices.		Duties.		Average Prices.		Duties.		Average Prices.		Duties.		Average Prices.		Duties.	
s.	d	s.	d	s.	d.	s.	d	s.	d.	s.	d	s.	d.	s.	d
45	0	41	8	16	0	37	10	19	0	40	9	8	4	34	9
46	0	40	8	17	0	36	4	20	0	39	8	9	0	33	3
47	0	39	8	18	0	34	10	21	0	28	9	10	0	31	9
48	0	38	8	19	0	33	4	22	0	36	3	11	0	30	3
49	0	37	8	20	0	31	10	23	0	34	9	12	0	28	9
50	0	36	8	21	0	30	4	24	0	32	3	13	0	27	3
51	0	35	8	22	0	29	10	25	0	31	9	14	0	25	9
52	0	34	8	23	0	27	4	26	0	30	3	15	0	24	3
53	0	33	8	24	0	25	10	27	0	28	9	16	0	22	9
54	0	32	8	25	0	24	4	28	0	27	3	17	0	21	3
55	0	31	8	26	0	22	10	29	0	25	9	18	0	19	9
56	0	30	8	27	0	21	4	30	0	24	3	19	0	18	3
57	0	29	8	28	0	19	10	31	0	22	9	20	0	16	9
58	0	28	8	29	0	18	4	32	0	21	3	21	0	15	3
59	0	27	8	30	0	16	10	33	0	19	9	23	0	13	9
60	0	26	8	31	0	15	4	34	0	18	3	24	0	12	3
61	0	25	8	32	0	13	10	35	0	16	9	25	0	10	9
62	0	24	8	33	0	12	4	36	0	15	6	26	0	9	3
63	0	23	8	34	0	10	10	37	0	14	0	27	0	7	9
64	0	22	8	35	0	9	4	38	0	12	0	28	0	6	3
65	0	21	8	36	0	7	10	39	0	11	0	29	0	4	9
66	0	20	8	37	0	6	4	40	0	9	6	30	0	3	3
67	0	18	8	38	0	4	10	41	0	8	0	31	0	1	9
68	0	16	8	39	0	3	4	42	0	6	0			1	0
69	0	13	8	40	0	1	10	43	0	5	0				
70	0	10	8	41	0	1	0	44	0	3	6				
71	0	6	8					45	0	2	0				
72	0	2	8					46	4	1	0				
73	0	1	8												

For every barrel of 196 lbs. of wheat meal or flour, when imported from foreign ports, or when entered from bond for home consumption, a duty equal to whatever the duty may be on 38½ gallons of foreign wheat.

For every 181½ lbs. of oatmeal a duty equal to that payable on one imperial quarter of foreign oats.

No malt, nor any kind of corn ground is admissible from foreign ports, except wheat meal or wheat flour, and oatmeal.

From the British plantations in North America, or elsewhere out of Europe—

All grain and flour may be imported for home consumption at all times.

Wheat at a duty of 5s. per imperial quarter, until the average price of British wheat be 67s. per imperial quarter; if at or above 67s., the duty to be 6d. per quarter.

Barley, Indian corn or maize, and buckwheat, at a duty of 2s. 6d. per imperial quarter, until the average price of British barley be 34s; if at or above 34s. the duty will be 6d per imperial quarter.

Oats at a duty of 2s. per imperial quarter, until the average price of British oats be 25s. per quarter; if at or above 25s., the duty to be 6d. per quarter.

Rye, peas, and beans, at a duty of 3s. per imperial quarter, until the averages of those articles respectively, if British growth, be 41s. per imperial quarter; if at or above 41s., the duty will be 6d. per quarter.

Flour or meal, of wheat per barrel of 196 lbs., a duty equal to that payable on 38½ gallons of British colonial wheat.

Oatmeal per 181½ lbs., a duty equal to that payable on an imperial quarter of British colonial oats.

SHEEP.

Mode of marking Sheep without injury to the Wool.

An English writer gives the following:—Mark on either side of the *nose* of the sheep, the initials of the owner's name, and on the opposite side any number by which he may choose to designate the particular sheep, by means of a small iron letter or figure about an inch long; which being dipped in common oil colours, mixed with turpentine to dry them more readily, is placed on the part described, and will continue until the next shearing season.—The process is easy, and will give the animal no pain; the marks cannot be readily obliterated, which is not the case with tattooing or cauterizing.

[*N. E. Farmer.*

LIMING SEED WHEAT.

A respectable correspondent informs us, that unslacked lime has been found to answer an excellent purpose, in preparing wheat for seed. The gentleman states that he put about four or five pounds of quick lime into a sufficient quantity of water to soak one bushel of wheat, which he sowed the last spring, then added the wheat, and permitted it to remain about twelve hours. The lime, by slacking, raised the temperature of the water to blood heat, and the wheat became soft, and apparently par-boiled. On sowing it, however, it sprouted much sooner than usual, flourished remarkably, and produced an excellent crop, entirely free from any appearance of smut. The above is probably the least expensive, and most efficacious mode of preparing wheat for seed, that has yet been discovered.

EARLY FECUNDITY.

A stirk, only one year and two days old, belonging to Mr. William Greenshields, in Birkhill, parish of Lesmahagow, produced a calf about the 12th of April last. The animal is doing well, but the calf was killed, as most of them are at this season.

HORTICULTURE.

CULTURE OF SILK.

As the season for conveying silkworm eggs *by mail* is approaching, I beg leave to inform planters, farmers and others, that I have a very large quantity of the eggs of the best Italian silkworm, which I will distribute on the following terms, viz: To any person who will enclose to me five dollars, I will send by mail, (in which they go perfectly safe) *from five to ten thousand eggs*, with ample instructions for the management of the worms and preparing the silk for market. This quantity of eggs will be amply sufficient for a first experiment and for producing an abundant stock of eggs for future use. As the eggs cannot be sent by mail in warm weather, it is necessary that applications be made early, that I may take advantage of the cold weather to send them. Personal applications may be made to me at the office of the Baltimore Patriot, corner of North and Market streets. Persons residing in the south, are particularly advised to make immediate application, that they may be able to receive the eggs before the early warm weather sets in. My instructions for the management of the worms and the preparation of the silk, will contain every thing necessary or useful on the subject, as well as directions for the cultivation of the *white mulberry;* and, if desired, a quarter of an ounce of *white mulberry seed* will also accompany the eggs. The postage of the package of eggs and instructions, will not exceed treble that of a common single letter, and when the mulberry seeds are sent it will not exceed quadruple postage. Letters enclosing five dollars, as above, will be promptly attended to.

Several years experience in the cultivation of silk enables me to give all the practical information that can be desired on the subject. Last summer I raised *ten thousand worms*, and devoted great attention to them, for the purpose of testing my former opinions, and trying some new improvements that former experience had suggested. The result was the establishment to my entire satisfaction, of the opinion I have so long urged upon public attention, "*that the cultivation of silk is a very simple art, and may be introduced among our agricultural pursuits with the greatest facility.*" The trial of one of the improvements alluded to resulted most satisfactorily, and will be the means of saving a great deal of labour and attention. I have also read with attention all the late publications on the subject, among others the Manual published by congress last winter, and availed myself of every useful hint they contain.

As to the simplicity of the art of cultivating silk, I could offer the most conclusive testimony. There is no branch of agriculture more simple; even children comprehend and practise it with the greatest facility. There is no necessity for thermometers, barometers, &c. as has been urged so authoritatively of late. The worms are a very *hardy* insect as it relates to the changes of the weather, &c. and will turn out full sized and well formed cocoons of the best silk, whether the weather be hot or cool, whether the thermometer ranges at 68° or 90°, as I have often proved. *The girls* in some parts of Connecticut attend to their silkworms in *barns*, and produce as good silk, and as much of it as those who have scientifically constructed "laboratories." With very little labour they in a few weeks make silk enough to pay for their dresses and other articles which they purchase at the stores. They generally make *sewing silk*, for which they find a ready market at all the country stores, and much of that retailed in the city of New York is made in Connecticut, and is highly esteemed. Large quantities of raw silk are also made in Connecticut, with which the ribbon, lace, and fringe manufacturers of the city of New York are in some measure supplied. *Little girls* in the western country have also acquired the art of raising silk, and produced some fine specimens. I have in my possession a specimen of silk made by a young lady of South Carolina, (a first experiment,) which is superior to any of the imported article I have seen, and is said by a silk lace and fringe maker of this city, to be worth *fourteen dollars a pound.* A young lady of Baltimore, who had no previous knowledge of the silk culture, produced last summer, (1828,) several large hanks of raw silk, with which the agriculturists decorated their cars, in the great civic procession in this city, on the occasion of the commencement of the Baltimore and Ohio Rail Road. She also produced some small skeins of finished silk, of a most beautiful and rich quality. These are only a few instances of persons, before utterly ignorant of the subject, and young in years, producing silk of a superior quality, with which I am acquainted. I will now give an estimate of the labour required to raise worms, from my own experience, that an idea of the profitableness of the silk culture may be obtained.

Labour of attending ten thousand silkworms from the hatching of the eggs to the completion of the cocoons.

During the first three weeks a boy eleven years old was occupied half an hour each day, and the remaining two weeks an hour and a half each day, in gathering leaves; and during the first three weeks a female of the family was occupied three quarters of an hour each day, and the remaining two weeks an hour and a half each day, in feeding and clearing the litter from the worms. All the time occupied by the boy, 31½ hours; whole time occupied by the female, 36¾ hours. The produce of the ten thousand worms was 28 pounds of cocoons, worth at least 25 cents a pound. To reel these cocoons, and prepare the silk for market, in a state equal to that of the specimen said above to be worth $14 a pound, would not have occupied a female skilled in reeling over four days, and the product would then have been two pounds and a quarter of silk—or *thirty-one dollars and a half!*

One female and a boy can with ease attend to 100,000 worms, if they devote their whole time to them, which would yield, in finished silk, three hundred and fifteen dollars—an income, it is believed, which they could in no other way produce from their own labour in a whole year, much less in a few months.

From these facts our farmers and planters, and particularly their ladies, will be able to judge whether it will be to their advantage to turn their attention to the culture of silk.

Gideon B. Smith,
Baltimore, Maryland.

Editors of papers in Maryland and Delaware, and the southern and western states, will oblige me, and probably subserve the cause of the silk culture, by giving the above an insertion in their papers.

G. B. S.

[Though it may be a matter of supererogation, we do *ourselves* the gratification to say, that from *our own* knowledge of Mr. Smith we can safely say, that for experience, discrimination and fidelity, what he does and says and offers for the public use and benefit on this subject, is eminently worthy of regard and confidence.]

(From the Aurora.)

PEACH TREES.

The information derived from Mr. Bland, and others, with respect to the growth of peach trees on the pampas of Buenos Ayres, which are so highly impregnated with salt, that there is no water to be had there that is not brackish, and that near the surface of the soil, suggests the trial of salt at and about the roots of our peach trees.

LADIES' DEPARTMENT.

Preservation of Fruits and Juices.

(*Concluded from page 213.*)

White and Red Currants in bunches.—Gather the currants when not too ripe: collect the finest bunches and bottle them, taking care to shake them down on the stool, in order to fill up the vacancies in the bottle. When corked, luted, and put in the water-bath, be careful to watch closely; and as soon as you perceive it boils, withdraw the fire rapidly, and a quarter of an hour afterwards draw off the water from the bath by means of the cock, or remove the bottles from the boiler.

White and Red Currants, stripped.—When the currants are stripped, they are immediately to be put into bottles, and the operation conducted with the same attention as with the currants in bunches. It is better to preserve currants stripped than in bunches, as the stalks always give a harshness to the juice.

Cherries, Raspberries, Mulberries.—Gather these fruits before they are too ripe, that they may be less bruised in the operation. Put them in separate bottles, and shake the bottles gently on the stool. Cork them, &c. and complete them in the same manner, and with the same care, as the currants.

Currants and Cherries may also be preserved in the second method above stated for gooseberries, viz: with boiling water, covered with sweet oil after it is cold.

Juice of Red Currants.—Gather the currants quite ripe, and squeeze them upon a sieve; put the skins which remain upon the sieve under a press, in order to extract all the juice which may be in them, and mix this with the former juice. Perfume the whole with a little raspberry juice, and strain it through a sieve finer than the one first used. Bottle and cork the juice, and expose the bottles to the water-bath, with the same attention as the currants, &c.

Proceed in the same manner with the juice of barberries, pomegranates, oranges, and lemons.

Strawberries.—Numerous experiments have been made on the strawberry, and in various ways, without being able to obtain its perfume, without having recourse to sugar. Bruise the strawberries, and strain them through a sieve; add half a pound of powdered sugar, with the juice of half a lemon, to a pound of strawberries; mix the whole together, put the decoction in bottles, and when corked, &c. expose them to a water-bath till it begins to boil, &c. This mode succeeds very well in every respect, except the colour, which suffers considerably; but that may be supplied.

Apricots, Peaches and Nectarines.—Apricots from standard trees in the open air, answer better for this operation than hot-house, or even wall-fruit, being less tender. Gather them when they are ripe, but somewhat firm; when, on being pressed gently between the finger, the stone is perceived to detach itself from the fruit. As soon as gathered, cut them in halves, take out the stone, and peel off the skin with a knife as delicately as possible. Put them into bottles, either in halves or quarters, according to the size of the mouth, and shake them on the stool to lessen the vacancies. Add to each bottle from twelve to fifteen almonds; cork them and put them into the bath. As soon as it boils, instantly withdraw the fire, and in a quarter of an hour afterwards, draw off the water from the bath.

Peaches are treated precisely as the apricots—as also *nectarines*, only the skin is left on the latter.—Watch the water-bath closely, to prevent their being spoiled by over-boiling.

Plums of every kind.—All the smaller kinds may be preserved whole, with the stone in them, after taking off the stalks; but the larger varieties should be cut in halves, and have the stones taken out, as the vacancies they leave in the vessel, when used whole, cannot be diminished by shaking, without bruising the fruit; and besides, the heat of the bath causes them to shrink, and leaves the vessel half empty. Whether preserved entire or in pieces, they are to be treated in the same manner as the apricots and peaches.

Small plums may also be preserved by the second process above respecting gooseberries.

Pears of every kind.—When the pears are peeled and cut into quarters, and the pips with their husks are taken out, bottle them, &c. If they are of a kind usually eaten raw, they should only be brought to boil; but those kinds that are usually stewed or boiled, should remain boiling for five or six minutes. Pears which have fallen from the tree should be boiled for fifteen minutes.

The Flower Garden of Paris.

[Some writer, describing the flower garden of Paris, relates the following tale:—

How long before our young ladies will be so far adepts in Botany as to maintain a correspondence in the same way, even when prompted by the *grand impulse!* yet what more pleasing than the study of flowers?]

"Not long ago, a young officer, who had made the campaign of Egypt, fell in love with a young Parisian, and, in the Spanish fashion, began to walk under her window. The lady was under the guardianship of her brother, who, being a married man, and wishing to secure his sister's fortune for his own family, was of course much averse to her marrying. The lover, unable to open a correspondence in the usual way, but learning that his Rosina was fond of flowers, and had traffic with the bouquetière several times a week, bethought himself of turning to account the knowledge he had acquired in the east of the *language* of flowers, and forthwith established his head quarters in the market. The bouquetière was gained, and by her means, he conveyed to his mistress a carnation, the emblem of an ardent passion. Some days after he received in return a honey suckle, the symbol of friendship; he replied by a heliotrope, which means love in sadness, and added the amaranth as a postscript, to signify constancy. For a long time he received only the eternal honeysuckle; but at last a rose-bud appeared, the avowal of a mutual affection, and then a veronica, which says, as plainly as a flower can speak, 'The more I see you, the more I love you.' The captain was enchanted; and although his mistress was hardly yet of age, he resolved to bring the romance to a conclusion, and carry her off. This he explained in a very complicated bouquet; but unfortunately the young lady was not equally proficient in the language of flowers. Wishing to make a longer reply than usual, she so embroiled her ideas that the astonished lover found among the flowers a pied-de-lion (coquetry,) the monkshood, (raillery) and at last a superb cockle-weed; the doleful emblem of strife and indifference! The despairing lover, when he abandoned his position in the flower market, was almost tempted to throw himself over the parapet. Believing that he had received his leave from Love, he petitioned also for that of Mars; and in this double retirement, like a true knight of romance, added to his coat of arms the scabious, the token of widowhood and grief."

Easy and safe Method of Discharging Grease Spots from Woollen Cloths.

Fuller's-earth, or tobacco pipe-clay, being put wet on an oil spot, absorbs the oil as the water evaporates, and leaves the vegetable or animal fibres of cloth clean, on being beaten or brushed out. When the spot is occasioned by tallow or wax, it is necessary to heat the part cautiously by an iron or the fire, while the cloth is drying. In some kinds of goods, blotting paper, bran, or raw starch, may be used with advantage.

SPORTING OLIO.

(From the "Rural Sports.")

HUNTING.

The hunting of Partridges, is expressly mentioned in a passage of Scripture, 26 chapter, 20 verse of the first book of Samuel, and Dr. Shaw gives an account, how it is practised by the Arabs, observing that these birds become languid and fatigued, after they have been hastily put up, twice or thrice, they immediately run in upon, and kill them with their Zerwattys or Bludgeons.

A thoughtless propensity, to kill all the game possible, at stated periods, seems to mark a new era, in the amusement of shooting, which was formerly resorted to during the season, as a species of diversion, affording regular exercise, at the same time it excited and improved the skill of the marksman, the latter appears to be now the sole object. Undoubtedly those gentlemen who strictly preserve their mannors, may destroy the produce of them *en masse*, if so determined, but this rage for destruction, presents itself in the shape of a struggle, for exhibiting the largest number of certain animals, to be extirpated within the limits of a few hours. We have selected some specimens that have taken place during the last seven years.

Lord Rendlesham and party killed *three thousand seven hundred and seventy-five head of game*, during the last week in the season of 1807.

At the latter end of October, Mr. Coke had a shooting party at Holkham, consisting of Mr. Coke, Lord Albemarle, Mr. Churchill, Mr. Collet, Lord Tavistock, Mr. Wilbraham, General Walpole, Mr. William Fitzroy, Lord Spencer, General Keppel, Lord Anson, Lord Bradford, Lord Althorpe, Colonel Keppel. They killed as follows, in three days shooting—Mr. Coke himself beating each day.

Part.	*Phea.*	*Hares.*	*Rabbits.*	*W. Cock.*	*Var.*	*Total.*
16	69	266	171	8	1	531
25	49	205	183	9	2	473
5	32	160	242	12	2	453
46	150	631	596	29	5	1457

Holkham.—The following is an account of the game killed by Mr. Coke, and seven other gentlemen, in two weeks:

1131 hares, 214 pheasants, 350 partridges, 883 rabbits, 30 woodcocks, 12 wood pigeons, 3 snipes—Total 2863.

The Duke of Rutland, at Chevely Park, attended only by his gamekeeper, shot *one hundred and nine* head of game. On the following day, all the sporting gentlemen and park-keepers, went out and killed as much game as filled *four one horse carts.* The whole was dressed on the day of the grand jubilee.

The same year were shot, from September the 21st to November the 1st, at Cheveley, in Cambridgeshire, 1310 partridges, 162 pheasants, 361 hares, 196 rabbits.—Total, 2036.

In 1810, the Earl of Jersey and some friends, shot at Osterly Park, *fifty brace of pheasants* and *one hundred Hares.*

In 1811, the Chasse at Holkham, in Norfolk, when Earl Moira, and several other shots of distinction, were down on a visit to Mr. Coke, produced to the game larder, within *six days*, the following enormous list of slaughter, viz.

Pheasants, - - - - -	264
Partridges, - - - - -	314
Woodcocks, - - - - -	29
Snipes, - - - - - -	46
Hares, - - - - - -	283
Rabbits, - - - - - -	371
Total killed, - -	1307

A Royal Duke, was one of the above destructive corps, but being of the military order, his return, or rather the return made for him, was of a different kind, viz.

Killed of game,	0
Wounded in the legs,	1 foot marker, slightly.
Wounded in the face,	1 groom, severely.
Wounded on the head of a friend,	1 hat.
Ditto on the left rump,	1 horse.

The Duke of Newcastle, accompanied by two gentlemen, in Manton woods, near Bawtry, killed in one forenoon, 36 hares, 35 cock pheasants, 18 rabbits, and 1 woodcock. His Grace is famous for a breed of spaniels, which were presented to one of his ancestors, when in France, by the Duke de Noailles.

Confined to quadrupeds, this is by no means an indifferent sample. At a great hunt, which took place in 1810, at Schorndorf, in Suabia, 94 stags, 210 roe-bucks, 148 wild boars, 26 foxes, and 14 hares, were killed.

The foregoing registers, manifest the care necessary, in rearing and defending game, from the devastation occasioned, by vermin and poachers, and to supply the numbers, which are essential to be killed, to bring a manor into decent repute. The following shews the reward held out, for the most expert in this Science of Preservation.

At the annual meeting of the game-keepers of the county of Suffolk, on the ninth of December, 1811, at Bury, for the purpose of awarding a large silver powder flask, to the keeper who should produce the certificates, for the greatest quantity of hares, pheasants, and partridges, shot at, as well as killed, during any six days, from the eighth of October to the eighth of December, Richard Sharnton delivered vouchers for the following list, and obtained the flask. The prize is given upon a comparison of the sport, estimating the number of guns, and the extent of land in strict preserve. Sharnton's list averaged three guns, and his extent of preserve four thousand acres.

	Killed.	*Missed.*	
Cock pheasants,	378	199	
Hen pheasants,	51	33	
Partridges,	506	301	
Hares,	177	94	
Total shots,	1739		nearly 300 a day!

Sharnton afterwards produced the account of the vermin, and birds of prey, that he had destroyed in the last twelve months. He has but two under-keepers.

Foxes,	22	Hawks of all kinds,	167
Martins,	3	Field rats,	810
Polecats,	31	Brown owls,	13
Stoats,	446	Wild cats,	7
Crows and magpies,	120		

THE FARMER.

Baltimore, Friday, September 26, 1828.

☞ The Celebration of the birth day of the surviving signer of the Declaration of Independence was kept up this year with increasing relish and gladness.

The family of the venerable patriarch had been gathering under the manorial roof for some days previous, and in the midst of it his friends found him on the 20th September, in the enjoyment of health even better than usual, with a constitution balanced and preserved by regularity and temperance, and spirits animated by the cordial and affectionate gratulations of his friends, on the completion of his ninety and one-years. Under other circumstances, it might well be supposed that a company so numerous, with so many resources for conversation and amusement, would break into groups and small circles; some to saunter through the fields and others through the large old garden to gather its delicious fruits, or pluck the flowers whose splendour and fragrance tempt you on every side; that the book worm would steal from the gay circle to pour over some precious volume of ancient lore, and yet more surely that grace and beauty would attract the regards of all who had an eye to admire, and a heart to feel: but on this occasion all other objects seemed to lose their power of attraction, and the "old gentleman' to fill all eyes and all hearts. Those who were not engaging him in conversation were remarking upon his healthful appearance, his activity, his cheerfulness; the purity of his conversation and morals; his early and constant patriotism, the pregnant events of his life, and the pleasure he must have in the power to draw upon such a boundless store of interesting recollections. In short so completely does he engross on *that* day the admiration of his guests, that it seems as if each one had come with the pallet or the pen, to take his portrait, or to write the memorabilia of his early days, whilst yet and from him alone they may be had.

In the midst however of the Doughragan celebration with all its agreeable associations and festivities, the duties prescribed by religion are never forgotten nor omitted. At close of evening the whole household, white and black, assemble in the old chapel near the mansion to unite with the priest in supplicating the benedictions of Heaven on the head of the family; and such is the spirit of benevolence that pervades the whole establishment, that the very slaves wear the aspect and air of comfort and happiness, and seem to feel in the paternal care bestowed upon them all—how true it is that though

> "'Tis the primal curse
> Yet softened into mercy; made the pledge
> Of cheerful days, and nights without a groan."

At dinner we met the usual offering from Harewood. The haunch of a noble buck came "smoking on the board," and contributed not a little to the *substantial* recreations of the day. But in the height of this "feast of reason and the flow of soul," we did not forget that we came to honour the *ninety-second birth day;* and in the moments of gayest hilarity to interpret the common feeling, you had but to pronounce the sentiment.

The most venerable of human objects; extreme old age; virtuous, healthy, cheerful, enlightened; leaning upon the affectionate devotion of numerous and happy descendants, and the grateful admiration of a powerful and republican people.

☞ We take the occasion to express our gratification at the auspicious commencement of a systematic undertaking to promote the improved culture of the vine in and about this city.

It is needless to dwell on the more easy and rapid diffusion of ideas and information on all subjects, by the *association* of zeal and intelligence, and if we have not hitherto attended these meetings of our most respectable citizens for an object so laudable and so conducive to the pleasure and personal comfort of families, it has been only for the want often, of even one moment's leisure. On a particular account we rejoice at the establishment of this society, because it will afford the opportunity of disposing of the specimens of wines, cuttings of vines, seeds of new and valuable grapes, &c. which we often receive from different parts of the United States. Thus it presents the best chance for the cultivation and preservation of the seed of superior native grapes sent us by Mr. Davie of Carolina and Mr. Webb of Pennsylvania, of which an account will appear in the next number of this journal.

"At a meeting of the *Maryland Society for promoting the Culture of the Vine*, holden at the Athenæum, Sept. 1st, 1828, the following gentlemen were elected officers of the Society, viz:—General Wm. McDonald, *President;* Henry W. Rogers, *Vice-President;* John S. C. Monkur, M. D. *Corresponding Secretary;* Philip Poultney, *Recording Secretary;* Zebulon Waters, *Treasurer;* Richard G. Belt, M. D., B. I. Cohen, George Fitzhugh, Jr. Charles C. Harper, Walter Price, Lloyd N. Rogers, Robert Sinclair, James R. Williams, William G. Jones, *Directors;* John B. Morris, William Gibson, James Cox, *Judges.*"

Maryland Agricultural Society.

Thursday, 18th September, 1828.

The Trustees of the Maryland Agricultural Society met this day at Brookland Wood, the residence of Richard Caton.

Present, seven members and the Corresponding and Recording Secretaries.

The President being absent, R. Caton was called to the chair.

The Committee appointed to fix a time for the next Cattle Show and Fair, Report, that they have determined on Thursday, the 16th day of October next, and that arrangements be made to have the premiums awarded and delivered on that day.

On motion, it was unanimously *Resolved* that T. W. Coke, Esq., Admiral Sir Isaac Coffin, Sir John Sinclair, and William Jacob, Esq, of Great Britain; M. Girod de L'ain, of France; Joze Silvestre Rebello, minister plenipotentiary from Brazils; John Young, Esq., of Halifax, N. S., bo, and they are hereby elected honourary Members of the Maryland Agricultural Society; and that the diploma of the Society, signed by the President and countersigned by the Secretary, be forwarded to each of them by the Corresponding Secretary.

The Trustees then adjourned to meet at H. V. Somerville's, on Saturday, the 11th day of October next.

Darby's View of the United States.

This geographical survey of the United States is now nearly ready for publication, and we avail ourselves of a copy of the sheets as far as printed, to notice its contents and arrangement.

The author thus expresses the intention of the treatise: "There are many subjects of importance which neither the brevity nor scope of the View will admit; my purpose in writing it was geographical delineation, and not political disquisition; therefore whenever the latter is introduced, it is incidental."

Chap. 1., contains a brief historical introduction, giving a sketch of the great leading events which preceded, and contributed to suggest and accelerate, and which eventuated in the establishment of English and French colonies in North America. This historical sketch is closed by a chronological table, which continues the chain of events in the general history of the United States, to the last apportionment of representation in the House of Representatives, 1822.

Chap. 2, contains a survey of the relative position, extent and general features of the United States.

Chap. 3. Geographical view of the Southern section of the Atlantic Slope of the United States, from Florida Point to the Basin of Ruanoke, inclusive.

Chap. 4. Geographical view of the Middle section of the Atlantic Slope, from the basin of the Chesapeake to that of the Delaware, inclusive.

Chap. 5. Geographical view of the north-eastern section of the Atlantic Slope, from the basin of the Hudson to that of the Narraganset, inclusive.

Chap. 6. Geographical view of the north-eastern section of the Atlantic Slope, from Barnstable isthmus to the mouth of St. Lawrence.

Chap. 7. Geographical view of St. Lawrence basin, including not alone that part comprised in the United States, but the entire Canadian sea, with its expansive lakes and numerous and capacious rivers.

Chap. 8. Geographical view of the Great Central Basin of the Mississippi.

Chap. 9. Basin of Columbia or Oregon, completing the physical geography of the United States.

Chap. 10, is occupied with a philosophical view of the climate of the United States.

This is as far as a cursory glance can enable us to judge of a very important part of the treatise before us. The author seems to have availed himself of the latest and most authentic sources of information, and to have condensed in ample tables, very extended observations on temperature and prevalent winds. If such a chapter does not decide the character of our climate, it must go far towards affording data for a true theory of its meteorology. The following concluding remarks, we are induced to place before our readers, as they express the induction drawn by the author from the previous recorded facts:

"A radical meteorological revolution could be possible only from a change in the present order of things on this planet, and that as long as the earth revolves in her orbit, with her present distance from the centre of motion, with her axis inclined as it is to the ecliptic, and whilst the two great elements on her surface, air and water, retain their constituent organization and relative quantity, so long will the mean temperature of any given part of the earth maintain a near equality in a cycle of a few years.

"These conclusions are rationally drawn from the tenor of all history. View human beings in their relations with domesticated animals and cultivated vegetables, and we find in the same countries, that from the earliest ages, similar modes of life were pursued. The bread-producing, the viniferous, and oleaginous plants; the horse, camel, sheep, elephant, &c. remain restricted to the same geographical limits, over which the vegetables grew and the animals roamed since human observations were put on record.

"It is no hazard to assert, after the proofs adduced, that the interior of the United States has a natural climate in perfect accordance with its relative position and height. That the climates on the opposite sides of the western continent exhibit the same specific differences found to exist on like extremes of Europe and Asia. On any given place in the temperate zones of our planet, great discrepancies of mean temperature will occur in successive short periods of time, but in a cycle of twenty or thirty, or at most fifty years, all the possible extremes will be included." Chapter 10, closes the physical part of the work, and is followed by the political geography.

Chap. 11, contains the General View of the United States, commencing with the aggregate and progressive population. Mr. Darby, in his Geographical Dictionary, had already entered on this subject with views of ultimate augmentation far beyond any other writer on the statistics of the United States. In the View, the statements in the Dictionary are repeated and sustained, by reasoning which well deserves most serious attention.

The analysis of the population is followed by a survey of the existing and projected canals and roads of the United States and Canada. The latter subject is one of most vital importance, and exhibits, in the words of the author, a most singular fact: "*There is at this moment (September, 1828,) more canal and road improvement in progress in the United States and Canada, than there is on the whole residue of the earth.*"

Chap. 12, closes the work, and comprises a specific, though brief view of each state and territory; their relative position; outlines; extent, and general features, with a list subjoined of all the counties and their seats of justice; and also, the population according to the census of 1820.

From such very brief notice as the nature of the Farmer renders practicable, the general tenor of "The View of the United States," can be seen.—Such a work was a desideratum, and we need not say, ought to find its way into every department of society. It brings up, in one portable well printed volume 18mo., of about 600 pages, the geography of the United States to the present year, and gives what is no where else extant—a full list of the counties, and with their seats of justice, of course the principal post-offices in every section of the United States. There can be no family or profession to which such a companion will not be an acquisition.

The attendant maps are to be 14; one of the north-eastern states; one of the northern part of Maine, intended to elucidate the grounds of controversy respecting the boundary between the United States and Canada in that quarter; one of New York; one of the vicinity of Niagara, containing the route of the Welland canal; one of Pennsylvania and New Jersey; one of Virginia, Maryland and Delaware; one of North and South Carolina; one of Georgia and Alabama; one of Mississippi and Louisiana; one of Kentucky and Tennessee; one of Ohio and Indiana, and one of Missouri and Illinois; with a small general chart of the world.

The maps were prepared by the publisher, Mr. H. S. Tanner, of Philadelphia, so extensively and so advantageously known for the accuracy and elegance of his geographical delineations.

It is expected the View will be published in all the ensuing month, (October,) price $3.00.

☞The Latest News and its Effects.—We extract a few of the leading items of late intelligence from Europe. The effect of bad weather for their harvests, and of short crops in foreign countries, as well as our own and Canada, upon the price of bread stuffs, is best seen by our quotation of prices, which is always made with reference to the latest sales, and with the greatest possible accuracy.

The following general views from the National Gazette are better than any thing we could offer on the political aspect and state of things as respects the war between Russia and Turkey.

"Our readers will see that London intelligence to the 22d ult. has been received at New York. No further official advices from the Russian head quarters had arrived. The opinions of the British and French editors are various concerning the nature of the obstacles which the Russians were to encounter. The defiles of the Balkan mountains, Shumla and Adrianople, are represented by some as offering great difficulties; and it is contended that 'the capability of resistance in Constantinople itself probably exceeds the whole defensible strength of the

Persian empire." On the other hand, with regard to Constantinople, Captain Jones, of the British navy, whose book of Travels contains ample information respecting that cápital and its vicinity, and the Rev. Dr. Walsh, whose authority is acknowledged to be great on the subject, concur in the opinion that should it be approached, it must quickly fall, in consequence of the facility of cutting off its supplies of water. It is positively asserted by the London Courier that the French expedition to the Morea was concerted with Russia as well as England. We doubt not that important arrangements have been made by the principal cabinets, which will be disclosed ere long; and that the present British ministry have not been wanting in providence and energy."

"We have our regular file of the *Courier de Smyrne* down to the 5th July inclusive. The details which it furnishes respecting Turkish and Grecian affairs possess considerable interest, though they be not of later date than the information brought by the way of Liverpool. The articles from Constantinople are direct and authentic. In the course of June the Turkish Government was making the greatest efforts to fortify the vicinity of Constantinople, and in particular to protect the aqueducts by which the capital is supplied. The Captain Pacha directed in person, the completion of the works of defence. A number of Russian prisoners had arrived and were well lodged and fed. What is more remarkable, the governor of Smyrna, on the 1st July, gave permission to a Russian ship to enter the port, discharge her cargo, and take another. No Russian subjects had been molested. A very large Turkish force was assembled under the walls of Adrianople, and a levy *en masse* had been ordered in all the provinces. Every able bodied Mussulman was commanded to enlist. We translate the following paragraph in order to afford an idea of the feelings and preparations of the Porte.

Constantinople, June 25.

"Four hundred Russian prisoners arrived here to-day, and have been billeted on householders. The Sultan issued orders not to resist pertinaciously the passage of the Danube, but to concentrate strength and effort for Shumla, and the defile of the Balkan Mountains. The Grand Vizier is about to proceed to Adrianople with the levy en masse—the Captain Pacha goes to Varna by land. A decree has been read in all the mosques, by which every man between the ages of fifteen and sixty is ordered to arm and hold himself ready to march. In a few days, Constantinople alone will produce a contingent of 150,000 men. No one doubts at present that the Turks will make a desperate resistance.—The people yield submissively to the orders of the government and seem resigned to whatever event. The Sultan has directed that a general engagement should be avoided with the utmost care until the Russians arrive at the Balkans. A partisan war is preferred. An innomerable multitude of armed Turks will harrass and thin the invading host on every side.

The New York Journal of Commerce, under date of Monday, half past one o'clock, P. M. has the following paragraph:—

The Flour Market.

We learn that sales have been made this morning of Troy flour at 7 7-8. The news by the Columbia does not appear to have produced any material change in public sentiment.

The Philadelphia Aurora of Tuesday says:—

"The accounts of the British crops, and of the London market, furnished by the arrival of the packet ship Columbia, at New York, produced no change in our market for flour yesterday. Holders still ask $7, which we quote as the nominal price."

A letter dated Plymouth, Eng. August 24th, to a respectable house in New York, states the opinion that in consequence of the long succession of bad weather, they have no doubt that the averages in England will require supplies from the U. States.—The letter also adds that the price of sweet flour in bond, at Liverpool, was 26 to 28 shillings.

(From the American.)

We continue to day, our extracts from the London papers received by the ship Columbia at N. York.

A meeting was about to be held in London to petition parliament for the removal of the legal disabilities under which the Jews now labor. The Courier is in favor of the measure, which, it says, would not be more beneficial to their character and salvation than it would be honorable to the character and policy of the British government. [Amen! say we. As to the character and policy of the British government—as to the character and salvation of the Jews—how can they depend on any earthly power or tribunal.]

The Courier asserts that the resignation of the Duke of Clarence, (Lord High Admiral of the British Navy,) was not occasioned by political causes. No successor had yet been appointed.

A telegraphic despatch announced the sailing of the French squadron from Toulon on the 17th Aug. with 9000 troops. Another squadron, with more troops, was to follow.

The French expedition was expected to reach the Morea by the last of August, when it is said a joint declaration would be issued by the Ministers of Great Britain, France, and Russia, at Corfu.

The British government consider the blockade of Madeira, as confined to the port of Funchal.

(From the London World, August 20.)

The Weather and the Crops.

Were we to copy all the articles on the weather and the state of the crops, that have appeared in the London and provincial papers since our last, we should nearly fill our columns with them, and they would after all, be only a representation of the same facts, applicable to different places. We shall content ourselves, therefore with briefly stating, that in every part of the kingdom the harvest has begun with good prospects of a favourable issue. All accounts concur in asserting that the corn has suffered, comparatively with the anticipations, very little; and generally there is an average produce. The great loss has been in the hay; which, in many places, especially on low lands, has been either carried off by the floods, or rotted by long continued moisture. In Ireland the weather has upon the whole been good, and crops there are reported to be abundant, more especially potatoes.

The state of the weather has not of late differed in France from what it has been in this country. Rains have been abundant in almost all its provinces. Nevertheless, the price of wheat had fallen in some markets, and that of bread underwent a decline in proportion. From all parts of France it is stated that the harvest has not suffered the damage which had been apprehended from the bad weather; the farmers, however, are represented as anxious for a suspension of the rain. Some fears being entertained respecting the harvest in the neighborhood of Paris, the metropolitan Archbishop had ordered that prayers should be offered up in all his parishes for the cessation of the rain.

Hops.—From the unsettled state of the weather, our reports from the hop plantations are not quite so favorable as they have been. The plant in many situations, especially on the stiff soils, begins to show the effects of the continued and heavy rains that have fallen of late, and a further continuance of this weather, it is much feared will prove serious to the coming crop.

We extract the following paragraph, relative to the state of the harvest in East Guthland, from a German paper:—

"*Stockholm, July* 29.—The harvest is so uncommonly fine, that the farmers in East Gothland, one of our most fertile provinces, can now hardly obtain five rix dollars per ton for rye. Hay is cheaper than it has been during the last 20 years."

A meeting of the Executive Council of Maryland will be held on Thursday, the 2d of October next.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahaonock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $7.00 *a* 8.00—superfine Howard-st 6.00 *a* 6.25; city mills, 5.75 *a* 6.00; Susquehanna, 5.50 *a* 5.75—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.20 *a* 1.25—best white wheat, 1.25 *a* 1.35—ordinary to good, 1.10 *a* 1.20—Corn, .38 *a* .40—Rye, .40—Oats, bush. .20 *a* .22—Beans, 1.00—Peas, .50 *a* .60—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 20½ *a* .21—bbls. .22½—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Marketing—Apples, per bush. .50 *a* .75; Pears, per peck, .25 *a* .37; Butter, per lb. .25 *a* 31¼; Eggs, dozen, .16; Potatoes, Irish, bush. .75; Sweet, do. .75; Chickens, dozen, 2.00 *a* 2.25; young Ducks, doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Lambs, dressed, 1.75; young Pigs, do. .75 *a* 87½; Sausages, lb. .8 *a* .10; Soft Crabs, doz. .50 *a* .75; Hard do. 16¾; green Corn, dozen, .25; Canteloupes, .6 *a* .8 each; Tomatoes, peck, .25; Onions, bush. .50; Cucumbers, pickling, per hundred, .25; Beets, bunch, .6¼; Turnips, bush. 1.00; Partridges, .8 eah; prime Beef on the hoof, 5.50 *a* 6.00.

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On the temperature of Soils: The comparative advantages of Green or Dry Vegetable Matter ploughed into Land, and the application of all other Vegetable and Animal Manures, by Dr. Wm. J. Cocke, of Virginia—On the Cultivation of Orchard Grass in the South—On the Salivation of Horses, and on Pumpkin Seed Oil, by C. S. Rafinesque, of Kentucky—On Ground Bones as a Manure—English Patents, Improvements to Ploughs; New Method of Refining Sugar—On Manuring Land—New English Corn Law, Scale of Duties payable on foreign Grain, Flour, and Meal—New Mode of Marking Sheep without injury—Liming Seed Wheat—Early Fecundity—Gideon B. Smith on the Culture of Silk—Peach Trees—Preservation of Fruits and Juices, concluded—The Flower Garden of Paris—To extract Grease from Woollen Cloths—Hunting—Editorial, Celebration of the ninety-first birth day of Charles Carroll of Carrollton; Society for promoting the Culture of the Vine; Maryland Agricultural Society's proceedings; Darby's View of the United States; Latest News and its effects—Prices.

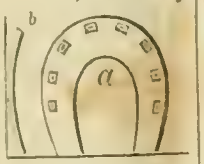
Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

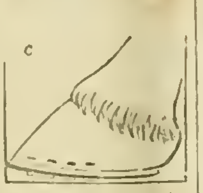
AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

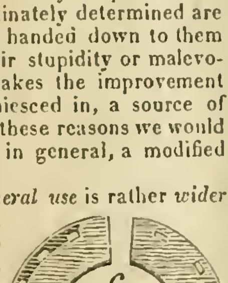
THE SHOEING OF HORSES.

The importance of the subject of shoeing to the agriculturist, is sufficiently attested by the immense number of inventions which the ingenuity of philosophers and artists are every day devising, to render the system complete. Almost every veterinary professor has his favourite shoe; and we find one of the most ingenious of the present day endeavouring to force on our notice, and introduce into our stables, the French method; which, with the exception of the mode of nailing on, White observes, is the very worst he ever saw. The French shoe (*a*) has a wide web towards the toe, and is concave above, and convex below (*b*.) on the ground surface, by which neither the toe nor heel touch the ground (*c*;) but the horse stands pretty much in the same way with an unhappy cat, shod by unlucky boys with walnut shells. But as Blaine observes, in reference to these inventions, "no one form of foot defence can be offered as an universal pattern." It is, he continues, plain that the principles of shoeing ought to be those that allow as little departure from nature as circumstances will justify. The practice, also, should be strictly consonant to the principles; and both ought to consist, first, in removing no parts but those which, if the bare hoof were applied to natural ground, would remove of themselves. Secondly, in bringing such parts in contact with the ground (generally speaking,) as are opposed to it in an unshod state; and above all, to endeavour to preserve the original form of the foot, by framing the shoe thereto; but never to alter the foot to the defence. The shoe at present made at the forges of the most respectable smiths in the cities and large towns throughout the kingdom, if it have not all the requisites, is, however, so much improved on, that with some alterations, not difficult either to direct or adopt, is the one we shall hold up as the most eligible for general shoeing. It is not that a better might not be offered to the notice; and in fact such a one we shall present to our readers; but so averse are the generality of smiths to have any improvements forced on them, and so obstinately determined are they to adhere to the forms handed down to them by their forefathers, that their stupidity or malevolence, or both, frequently makes the improvement itself, when seemingly acquiesced in, a source of irreparable injury. It is for these reasons we would recommend to agriculturists in general, a modified shoe of the common stamp.





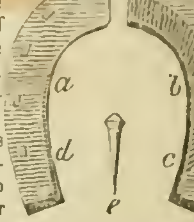
The improved shoe for general use is rather *wider* than what is usually made. Its nail holes (*a*,) extend no farther towards the heels than is actually necessary for security; by which the expansion of these parts is encouraged, and contraction is avoided. To strengthen the attachment, and to make up for this liberty given to the heels, the nails should be carried around the front of the shoe, (c.) The nail holes, on the under or ground surface of the shoe (*a*,) are usually formed in a gutter, technically called the *fullering;* but in the case of heavy treading powerful horses, this gutter may be omitted, or if adopted, the shoe in that part may be steeled. The web, should be quite even on the foot or hoof surface, (*b*,) and not only be rather wider, but it should also have rather more substance than is common: from half an inch to five-eighths in thickness, according to circumstances, forms a fair proportion; when it is less, it is apt, in wearing, to bend to pressure and force out the clinches. A great error is committed in setting shoes out so much wider than the heels themselves: this error has been devised to correct another, which has been that of letting horses go too long without shoeing; in which case, if the heels of the shoe were not too wide originally, as the foot grew, they became lost within the heels; and thus bruised and produced corns: but as we will suppose that few will wish to enter into a certain error to avoid an uncertain one, so we recommend that the heels of the shoe should stand only wide enough to prevent the expansion of the quarters pushing the heels of the feet over the outer edge of the heels of the shoe: for which purpose, if the iron project rather less than a quarter of an inch, instead of three-eighths, or even half an inch, as it frequently does, many advantages will be gained. Whoever attentively examines a shoe *well set off* at the heels, as it is termed, will find only one-third of its flat surface protecting the heels; the remainder projects beyond, and serves but to form a shelf to lodge dirt on; or as a convenient clip for another horse to tread on; or for the wearer to cut his own legs with; or to afford a more ready hold for the suction of clayey grounds to force off the shoe by. The heels of the common shoe are likewise not in general sufficiently long for the protection of the foot; and which defect, more than a want of width, causes the tendency to press on the crust of the heels. It is further to be observed, that if the decreased width of the outer standing of the heels, and the increased width of the web, should make the inner angle of the shoe heel in danger of interfering with the frog, the corner may be taken off. In forging this shoe, it may be bevelled, or left plane on both surfaces, or rather nearly so, for it is usual with most smiths to thin it in some degree towards the inner edge. This shoe is applicable to most feet, is easily formed, and, as such, in country places, is all that can be expected.



The injurious effects of bad shoeing would only be required to be known to excite every endeavour to obviate them; and there are some circumstances in the more common shoes of country smiths, that ought to be impressed on the mind of every agriculturist, and guarded against by every one who possesses a horse. It is too frequently observed that the ground side of their shoe is convex, and that the inward rim, when the foot is on the ground, is the lowest part, on which it is evident the weight must first press; and by which pressure the crust will be forcibly thrust on the extreme edge of the shoe; and the only resistance offered to its being forced from it, depends on the nails and clinches, instead of its just application to the ground, and the support derived from the uniform pressure of the whole. Every shoe should, therefore, be perfectly level on its ground surface: nor should any shoe be put on that has not been tried on a *plane iron* purposely made for such trial; which irons are kept in some smithies, but are absent from too many. The substance of the shoe should be the same throughout, forming two parallel lines of upper and under surface; in plain language, the heels, instead of being clubbed, as is too frequent, should be the exact thickness of the toe. Neither should the width at the heels diminish in the proportion it usually does; on the contrary, for a perfectly formed foot, the web should present an uniform width throughout.

Varieties in form of foot, differences in size, weight, and uses of horses, will necessarily make deviations in the form and substance of shoes. The very shoe recommended, may be considered as a variation from what would be immediately necessary, were the feet generally perfect; but it is to be considered that there are but very few feet but what have undergone some unfavourable alteration in their form, which makes them very sensible to concussion. It is for this reason, therefore, that it is recommended, that a shoe be used, for general purposes, somewhat wider and thicker than the common one. In weak, tender, flexible feet, it will be found particularly advantageous; and here the benefit of wide heels to the shoe will be most apparent. Good as the roads now are, yet most horses are occasionally subjected to travel on bad ones; some know no other: to these, the addition of one, or at the most, two ounces to each shoe, is nothing; but the ease to the horse and its superior covering, as well as support, is incalculable. In very young, very light, and very firm feet, the width and substance may be somewhat diminished at pleasure, and particularly in situations where the roads are uniformly good; but a very long and extensive experience has assured us, that the shoe pourtrayed, is one well calculated to meet the ordinary purposes of travelling, and the present state of the art of horse shoeing.

An improved shoe on the present plan, would be found to unite all the perfections of the modern English improvements, with some derived from our neighbours the French. What has since been called a *seated shoe,* was introduced by Osmer; but from the obstinacy and ignorance of smiths, as it could not be brought into general use, it became little thought of, until revived by Clark, of Edinburgh; by whom it was patronized and recommended. It finally was taken up by Moorcroft, and has ever since attracted some attention, and continues to be forged in some shops where the work is superiorly done; and where the employers have liberality enough to pay for such work, and judgment enough to discriminate between its advantages and those of the common shoe. If to this shoe were added the French mode of fastening it to the foot, we think the improvement would almost shut out all others. On examining the figure, it will be seen that this shoe presents a flat surface opposed to the ground; (*a*,) but a concave one towards the sole, (*b*;) but that this concavity does not begin, as in some seated shoes, near the outer edge, but embraces two-thirds only of the web, leaving by this means a sufficient surface for the crust: but this bevelling is not intended to reach the heels; it stops short of them (c,) leaving the web at this part plane for the heels to rest upon. The great advantages of this seating are, first, that as the crust rests on a flat surface instead of an inclined plane, as most of the common forged shoes presents, so its position is maintained entire, and the inclination to contraction is in a great degree avoided. The nailing on of this shoe we would recommend to be after the French method, which consists in conical nail holes, punched with a square countersink, (*d*,) into which are received conical nails (e,) which exactly fill up the countersink; by which means so long as any part of the base of the nail remains, the shoe must be held firmly on, and which is not the only advantage gained; for the nail holes being obliquely formed, and at some distance from the outer rim, act less detrimentally on the crust of the foot.



To prepare the foot for the application of the shoe, is also an important consideration. Avoid taking off more than one shoe at a time; otherwise the edges of the crust become broken away. Observe that the clinches are all carefully removed. Let the rough edges of the crust be rasped away; after which, the sole should be pared throughout, until a strong pressure with the thumb can produce some yielding: too stronge a sole tends to heat and contraction, too weak a one will not require paring.—In this paring, imitate the natural arch of the sole as much as possible. The line of concavity should not begin, as it usually is made to do, from the extreme margin of the foot, but should begin from the inner line of the crust only; by which means the crust, or outer wall of the hoof, will have a firm bearing on the flat surface of the shoe. Let no heated shoe be applied to correct the inequalities that may be left, unless it is for a moment, only to observe, but not burn them; but still more carefully avoid putting a plane shoe on an uneven foot. The portion of sole between the bars and quarters should be always pared out as the surest preventive against corns. The heels also should be reduced to the general level of the foot, never allowing their hardness to serve as an excuse for being left; neither suffer the inner heel to be lowered more than the outer. After all the rest has been done, the frog should be so trimmed as to remain on an exact level with the returns of the heels, and no more. The custom of taking away the point or angle of the horny inflexions of the heels, under the false term of opening the heels, is to be carefully avoided. Let all these operations be performed with a drawing knife. The butteris should never be allowed to come near the foot of any horse but the largest and coarsest of the cart breed.

(To be continued.)

AGRICULTURAL SOCIETY OF SOUTH CAROLINA.

August 19th, 1828.

On motion—*Resolved*, "That the thanks of this society be presented to Mr. *Horry*, for his very able and scientific Address delivered this day, and that a copy be requested for publication," which motion being seconded, was unanimously agreed to.

Extract from the minutes.

J. H. READ, Secretary, p. t.

AN ADDRESS,

Delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, on Tuesday, the 19th August, 1828; *by* Elias Horry.

Mr. President and Gentlemen:

It is with great diffidence that I address you on the present occasion; and this proceeds from the importance of the subject, and my inability to discuss it according to its merits. I shall, however, in obedience to your pleasure, make the attempt, and trust to your indulgence.

Of all the arts, Agriculture is doubtless the most useful and necessary. As a science, it has always been considered the most important to the general welfare and interest of mankind, and, therefore, deserves the peculiar attention of every nation. With it all other sciences are intimately connected; and in all ages, and more especially in modern times, it has been considered the best test of freedom, and of civilization. Agriculture is the foundation of manufactures, since the productions of nature are the materials of art. Commerce too, proceeds from agriculture, for the different climates of the earth having caused its productions to be various; exchanges suitable to the wants of its inhabitants are necessarily made. Men thereby lend their assistance to their fellow men, and a traffic is formed between nations, each rendering one to the other mutual benefits. Hence, commerce is founded through the medium of agriculture. An intercourse becoming constant, mankind gradually becomes civilized: and those nations have ever been deemed most humane and wise as to their laws and institutions—most improved as to science, literature and arts—most polished as to manners, and refined in all the intercourse of social life—which have brought their agriculture to the greatest improvement, and have most successfully combined it with commerce.[*]

It was my intention to have taken an historical view of agriculture, and its connection with commerce and manufactures, from the earliest ages to the present time. But however profitable the research would have been to myself, I found that the attempt would be a trespass on your patience; and that, although the subject may be worthy of a treatise, it could not be brought within the limits of an address. After the subversion of the Roman empire, the Feudal system became established every where, and Europe sunk into barbarism. Not only the arts of elegance, which minister to luxury, and are supported by it, but agriculture, as it had been practised by the Romans, and many of the useful arts, without which life can scarcely be considered as comfortable, were neglected, and in some instances lost. The human mind, uncultivated and depressed, was cast into profound ignorance. This state of things continued till towards the close of the eleventh century. The Crusades undertaken to rescue the Holy Land out of the hands of Infidels, by bringing nations together, had a tendency to enlighten the human mind; to rouse Europe from the lethargy in which it had long slumbered, and to introduce a change in government and in manners, and in favor of the arts. The Crusaders in their progress, marched through countries better cultivated and more civilized than their own, and thereby became acquainted with the agriculture, the productions, the arts, and the more polished and improved manners of other countries, and, particularly, of the east. Those who lived to return to their homes, carried with them their acquirements; and these had an immediate influence on the state of property, of government, and of power in the different kingdoms of Europe. Charters and immunities were granted to cities and corporations, whereby a great body of people were released from servitude, and from all the arbitrary and grievous impositions to which their former vassalage had subjected them. Towns became small republics, governed by known and equal laws, and liberty was deemed an essential and characteristic part in their constitutions.

This happy change was made to extend also to the country as well as to the cities, and roused all men from the inaction of their former wretched state. Industry revived, population increased, and commerce and agriculture became objects of attention. The husbandman, master of his own industry and secure of reaping for himself the fruits of his labour, became the farmer of the same fields where he had formerly toiled for another. But at this period literature was not, and could not be diffused. The art of printing was not discovered till during the fifteenth century; and what was taught and written, was composed in the Latin language, on metaphysics chiefly, and on subjects which rather confused than instructed the understandings of men. Happy, however, would it have been for Europe; happy would it have been for mankind, if these improvements and changes which took place after the Crusades, could have been allowed to progress, aided by the art of printing, invented at a subsequent period. But Europe and mankind were doomed for centuries, to a far different lot. Constant and desolating wars were to be waged:- wars for aggrandizement and for conquest; for making all men to be of one mind in matters of religion; for fixing and establishing equal balances of power; civil wars arising from ambition, and those carried on for the attainment of empire; and wars waged by the oppressed in the sacred cause of liberty. But it is not my intention or my province to discuss any of those topics, or even to say any thing relative to the discovery of America. History has recorded those events, and will carry the name of Columbus to the latest posterity. These wars completely arrested the progress of agriculture, and the art retrograded. Italy was ever considered well adapted for every species of agriculture; possessed fine meadows, a fertile soil and benignant climate. There agriculture was still attended to, particularly in Lombardy; but not in the spirit of former times. In many parts of Europe, owing to those wars, lands were considered the least costly of all gifts. This accounts for the large grants which were made to monasteries; and it is due to the monks, at least, to say of them, that a great part of Europe owes agricultural restoration to them. The culture of arable lands became every where imperfect. In England, during the reign of Henry VIII. the country was depopulated, by abandoning tillage, and throwing land into pasture—Good lands rented for one shilling the acre; meadow rented for double the price of arable land: but after a time, landholders found it necessary to augment their incomes, which were growing more and more inadequate to their luxuries. This caused them to give more attention to agricultural concerns, and to perceive that a high price for produce, against which their less enlightened ancestors had been used to clamour, would bring much more into their coffers than it took away. They, therefore, drew their attention to tillage, which rewarded their expectations, and their lands rose in value.[*]

During the reign of James I. considerable improvements were made in most arts, and also some in agriculture, which was beginning to be esteemed the most beneficial of any; and a number of books and pamphlets treating on husbandry were then written. Books on agriculture were also published every where on the continent of Europe; but notwithstanding these publications, the improvements still progressed by such slow degrees, that towards the close of the seventeenth century, at the time of the first settlement of South Carolina, and when, in France, the revocation of the Edict of Nantz, by Louis XIV. in 1685, caused many of the French protestants, the ancestors of a respectable portion of our community, to seek Carolina as an asylum from cruel and bigotted oppression; England and every other kingdom and state in Europe had not brought their agriculture to the perfection at which it had arrived among the nations of the east, particularly in China, where drill husbandry had been long known, where all the different kinds of manure had long been carefully collected, and skilfully distributed; where the lands were irrigated and drained in the most perfect manner, and abundant harvests reaped. At that time, in England, and over most of Europe, the broad-cast husbandry was alone practised; and draining and irrigation were unskilfully performed. At last, however, several eminent and learned men communicated their researches to the world, and laid the foundation of an improved state of agriculture.[†]

The most important improvement was made by Mr. Jethro Tull, who was educated at one of the English universities, and admitted a Barrister of the Temple, towards the commencement of the eighteenth century. During a tour of Europe, the attention of this gentleman was particularly directed to agricultural subjects. On his return to England from France and Italy, he took a farm in Berkshire, in order to pursue his plans of an improved cultivation. His grand principle was, "That labour, continual stirring the earth, and arrangement," would supply the place of manure and of fallowing; and raise more grain at a less expense. In 1731, he published "a Specimen of his System,"—and in 1733, "an Essay on Horsehoeing Husbandry,"—designed to introduce a new method of culture, whereby the produce of land will be increased, and the usual expense lessened. The work also describes the instruments to be used agreeably to his new plan. What has been long called, and known to us by the name of "Drill Husbandry," is founded upon this last work of Mr. Tull, and includes every method of sowing or planting seed in small furrows, drills or openings, in rows, at different distances, according to the nature and circumstances of all the soils and the crops, by suitable machinery, and in which the after-culture is performed by the use of "the horse-hoe," of Mr. Tull, or other hoes or tools of a similar kind, or acting on the same principle. Mr. Tull did not live to see the effects of his system in England, after a fair trial of a number of years, for he died in 1740. His method of culture made but slow progress in England, because the farmers were attached to their old customs, and those who opposed the new system were industrious to prevent others from attempting its trial. But it met with different success in France, for as soon as copies of the book were there received, a translation was undertaken at one and the same time by three different persons of consideration, without the knowledge of each other. Afterwards two of them put their papers into the hands of the third, Mr. Du Hamel du Monceau, of the Royal Academy at Paris, who published a treatise on the principles of Mr. Tull. In this treatise Mr. Du Hamel made a comparison between the old method of husbanery and the new. By his calculation the profits arising from the new, were considerably more than double those of the old. According to him, the profits of twenty acres of land, for ten years, by the old method amounted to 3000 livres, equal to $562 our money, and by the new method to 7650 livres, equal to $1434, making the prodigious difference of $872 in favor of the latter.

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[*] See Note A. at the end.

[*] See Note B. at the end.

[†] See Note C. at the end.

Mr. Du Hamel's book met with a very general circulation, and that, together with the improved editions of Mr. Tull's work, afterwards published, in a great degree tended to form and establish, notwithstanding the futility of some of his positions, particularly that of manure being of no consequence, a new era in the history of agriculture, on the continent of Europe as well as in England. But the same system, nearly, had been, for ages, almost the only one known and practised in Asia. In parts of India, it has always been used in the culture of almost every kind of grain, planted in that extensive and fertile country, and in the growth of hemp, tobacco, cotton, and even of the castor-oil plant. It is asserted also on the authority of travellers, and from the best sources of information, that in Arabia, China and Japan, where the cultivation of the earth has undergone no changes for thousands of years, they not only drill, but dibble corn of every description. The antiquity, therefore, of the system must be admitted; though it cannot be denied but that Mr. Tull, who was a man of letters, and therefore, most probably, had read respecting the agriculture of the east, introduced it into England, and thence it was extended to the continent of Europe and to America. My opinion is, that so far as extends to the culture of rice, and of indigo when a staple, and also of some of the small grains, the drill husbandry has, mostly if not always, been practised in South Carolina.

I have never heard, except for experiment, of rice being planted otherwise than in rows or trenches.—I can remember that indigo was thus planted; and I am induced to believe that Mr. Tull's system was as generally known in the British American Colonies prior to our revolutionary war, as in most parts of England, and that it came into practice in them sooner or more generally than in that country; for prior to the revolution most of the sons of wealthy agriculturists particularly those of the south, were educated in England, and on their return home, they brought with them such means of information and of improvement as would render the most essential services to their native country, and the best written books and treatises imparting information on all branches of knowledge.*

Notes.

A.

Agriculture takes its origin in the remotest antiquity. All nations, ancient and modern, have regarded it as the basis of population, and of their prosperity. Mankind, however, has always at first shewn a disinclination to exchange the savage, for civilized life, and the introduction of agricultural pursuits among a savage people has never been accomplished without some extraordinary interposition.

In the early stages of society, after man had passed the toils and hazards of the hunter's state, he must have found in the pastoral also—although he became less exposed to dangers and to hardships, and was more certain of his subsistence—that his herds and flocks were liable to innumerable accidents, and that he and they might at once be reduced to the miseries of famine. It became natural, therefore, for him to think of means, whereby he may with more certainty subsist, and procure the necessarias of life. His attention would immediately be turned to the earth, and in obedience to the command of the Almighty Father of the universe, he would proceed to cultivate it; and experience would prove to him, that by due cultivation, the soil would produce in abundance fruit and grain for his nourishment; but that without his labour, the natural fertility of the soil, the warmth of the sun and the revolutions of the seasons would be in a great measure unavailing.

The agriculture of the earliest ages must have been extremely simple; for the progress of the art has ever been slow, and in most countries it has been by degrees almost imperceptible. The implements for opening and turning the soil, must have been at first, of the rudest kind; and they could not have been made without some knowledge of the metals.

The records of holy writ, however, inform us, that before the deluge, the art of forging metals had been discovered, and that there were workmen in brass and iron. Agricultural instruments of some kinds, made of one or both of those metals, might, therefore, have been in use before that great event; and even a plough might not have been unknown to the antedeluvians. Agriculture once effectually commenced may proceed of itself, under the impulses of its own creation. An increase of population will require and occasion an increase of supplies.—Necessity will force industry; and industry will find inducement in the advantages incident to the acquisition of property in the civilized state. Thus a progressive agriculture, and a progressive population ensue, and the one becomes the natural consequence of the other. Agriculture may exist and progress to a certain extent, even under a bad government, subject to tyranny and oppression. But that extent would be no further than to supply actual wants, and to sustain the population of the country. The labour to accomplish this would most probably be performed by one class or caste of society. In a country so situated, agriculture would not improve after a certain period: the end being accomplished, improvement would cease. Such a country would also be occasionally subject to want and to misery. The husbandman would naturally cultivate the grain which the earth would yield abundantly with the smallest labour;—and, whenever from the vicissitudes of seasons his crop should fail, he and all who depended on his exertions would inevitably be reduced to famine.

Observations applicable to agriculture and to those countries situated in the finest climates, and which possess the most luxuriant and productive soils, may be carried to a very great extent; especially if they be applied to their laws for the protection of property, and the manners and customs of the people. But reflections on these topics, I shall consider as foreign to my present purpose.

B.

The exportation of corn had been prohibited; and it was not till the 5th year of Elizabeth's reign, that it was allowed; and Camden observes, that agriculture, immediately after that permission was granted received new life and vigour. But during the next reign, Mr. Hume, in his history, says that the nation was still dependant on foreigners for daily bread; and there was a regular importation from the Baltic, as well as from France, and if it ever stopt, the bad consequences were sensibly felt. Sir Walter Raleigh computed that two millions (of pounds sterling, I suppose,) went out at one time for corn.

C.

The publication of the "Anatomy of Plants," by Grew, contributed to enlarge the views and extend the inquiries concerning the nature of vegetation and the food of plants. After the restoration of Charles II. Evelyn inspired his countrymen with a desire of reviving the study of agriculture. He was followed by Ducket, the learned Ray, Dugdale, and several other authors; all of whom aided in the recovery of the art of cultivation, and some improvements were introduced by them The Royal Society, which had been established in 1662, now contributed still more to its advancement, and served as a focus for collecting and recording valuable materials on the nature of vegetation, and the principles of agriculture, as well as other subjects. About the commencement of the last century, additions and improvements were made. Bradley reduced the facts on vegetation into a more systematic order; and Miller contributed very materially, by the publication of his dictionary, as well as of his other valuable works. This dictionary was, and now is, considered the most celebrated work of its kind, and may be said to have laid the foundation of all the horticultural taste and knowledge in Europe, and afterwards in America. The last edition of this great work, published during the life of the author, was that of 1768, and in it the nomenclature and style of Linnæus was followed, instead of that of Tournefort. Linnæus has remarked, that Miller's was a botanical as well as horticultural dictionary; and it is admitted that it proved a powerful means of introducing a taste for scientific botany, amongst those who at first had recourse to it merely as cultivators.

D.

Besides, in most of the libraries formed and collected by gentlemen prior to the revolution, copies of Mr. Tull's essay were generally to be found; and though the horse-hoe was not used, on account of it being impracticable to do so at that time; yet the drill system was pursued with other hoes, deemed more suitable to the soil, and with ploughs and other implements.

(To be continued.)

GRASSES.

Columbia, S. C., September 8th, 1828.

J. S. Skinner, Esq.

Dear Sir,—In your most interesting paper, the American Farmer, I perceive in No. 23, vol. 10th, 22d of August last, an article on artificial grasses adapted to the southern states, signed D., dated Richmond, Va , July 28th, by which it appears that Mr. D. has received a letter from a "distinguished gentleman of South Carolina, lamenting the total destitution in his section of the country of all valuable grasses," &c.

This gentleman is certainly mistaken, unless he lives in a part of the state I am totally unacquainted with. It is true that we must manage our grass lands differently from what is done in more northern climates; but it is also true that besides very valuable exotic grasses that may be cultivated with advantage, we have many native ones which can, with a little trouble, be made very profitable; and among these there are several kinds that in no degree yield to any of those cultivated at the north. I believe it is perfectly true that we can, in the southern states, obtain hay of a quality equal, and most probably superior, and at an expense less than can be done at the north. We must also admit that our agricultural habits have hitherto been opposed to our successes in this respect; or rather, that we never have considered the subject properly, or attended to it in a manner worthy of it. To prove this most satisfactorily, I shall state what Mr. R. a very respectable neighbour of mine, has been doing for several years, by noticing what he has particularly done this year.

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* See Note D.

There is no planter in this state, but what knows crab or crop grass, (*Digitaria sanguinalis,*) and also the crow-foot grass, (*Eleusine indica,*) and that both these make excellent hay, particularly the latter; and also that there is no need of sowing either of them, and that they will invariably grow more or less abundantly, according to the quality of the land, after a summer ploughing.

Mr. R. obtained last week from four acres of land, only of middling quality, *twenty thousand pounds* of crow-foot grass hay; and he has another lot of about the same size which will produce, probably, about the same quantity. There is no kind of doubt as to the quality of this hay. It is very fragrant and very nutritious, and both horses and cattle eat it most greedily.

I beg, sir, you will take notice that this great crop of hay is a *second crop this year off the same land,* from which was cut, last June, a great crop of oats. Now, to obtain such crops, Mr. R. manures his land pretty highly with stable manure; gets a first crop of Indian corn; this is followed by a crop of small grain; rye, wheat, barley, or oats; and after the latter is off the ground, which is about the end of June, he gives his land a good ploughing, and has it rolled with a heavy roller to smooth it; and he lets it stand till about this time, when he mows his grass and cures it. Where can such a crop of hay be procured at a cheaper rate? It is remarkable, that if the land is ploughed as early as the latter end of May, (which may be done if rye, barley or wheat is the first crop,) crab grass will chiefly come up; but if as late as the last of June or beginning of July, crow-foot grass will come up almost exclusively—and this is the better grass of the two.

The present crop of Mr. R. is the crow-foot, which was from two to two and a half feet high, (I measured it myself.) This grass is most undoubtedly excellent, and it contains so much saccharine matter, that I have no doubt sugar might be extracted from it. This grass will grow on all qualities of dry land, and more particularly on a light sandy soil. Every farmer has it, then, in his power to have such crops of it as Mr. R., by using the same means. This being the case, why should we envy our northern neighbours their permanent meadows, or their other cultivated grasses? But we have low grounds also well calculated for meadows, properly so called, and in these a great number of native grasses grow with the utmost luxuriance, and many of them make excellent fodder. I know but few of them by name; some of them, however, will be found among the Paniceums, the Paspalums, (in dry and also in wet land,) the Agrattis, the Poas, &c.

This productiveness of our cultivated lands in crab and crow-foot grasses, without either being sown, is not however, a new discovery. It has been obtained, occasionally, and I believe every time it has been attempted. I have seen several papers at different times in the American Farmer, to which I beg leave to refer your readers. Some of them will be found in vol. 3, pages 212-224, in vol. 4, page 412, &c.

It is undoubtedly desirable that the agricultural societies in this state should direct some experiments on the culture of many of our native grasses; and I think it very probable that some of them would prove as valuable as the justly celebrated Guinea grass, or even in some respects more so, on account of their being suited to our soils and climate.

I am, very respectfully, dear sir,
Your obed't serv't,
N. HERBEMONT.

(From the Reporter.)

SHEEP.

Feeling a lively interest in the prosperity of the sheep business in this country, having a flock myself, I have thought proper to communicate the following facts and observations to the public, with a view to excite inquiry and elicit information in relation to that disease which has carried off so many of these useful animals during the present season.

Some time in February last, I looked at a flock of yearling lambs, (about 200 in number,) belonging to J. R. which I had seen late in the fall; at that time they were in a thriving condition. In February, when I examined them, several had died and the remainder were very poor, and a general cough prevailed among them, which increased with a shrill sound, a dull and heavy appearance, and extreme emaciation. Some time after, I dissected a sheep of this flock, which had fallen a victim to the disease. I commenced at the cardia, (pit of the stomach,) and cut obliquely backward, in the direction of the diaphragm on both sides, more than half way toward the spine or backbone; thence to the pelvis on both sides, so that I could have a complete view of the contents of the abdomen. I found no adipose matter. I continued my examination about the region of the colon; but found no inflammation, nor any other morbid appearance, until I came to the duodenum; it contained nothing but a little yellow, greenish slime, the duodenum somewhat inflamed, but the liver quite sound. I then passed the knife between the ribs and cartilages which connect the ribs with the sternum, which I removed. I dissected the pleura and exposed both lobes of the lungs. They were indurated and inflamed from the extremity, more than half way to the bifurcation of the trachea or windpipe. I opened the pericardium, but saw no morbid appearance. I then laid the lungs open, and in the cellular substance of the lungs and in the bronchial vessels there were a multitude of worms about as thick as a linen thread, and from one to six inches in length, exceedingly sharp pointed at one end, and that end of a chestnut brown colour, the rest of it of a pale white colour. In a day or two after, I dissected another sheep while it was yet warm, and found the appearance precisely the same, only that the worms were alive: in the other they were dead. I directed Scotch snuff to be given to the sheep which seemed to be diseased, on their food morning and evening, and tar and sulphur once a day. They appeared to improve in health immediately. The same application was used in a neighbouring flock, and apparently with good effect. Whether it is a remedy for the disease I will not undertake to decide, as but one or two experiments have been made; but it may be deserving a further trial.

Wool Grower.

Notes. *Diaphragm*—The muscles which separate the chest from the abdomen.
Adipose—Fatty matter.
Colon—One of the large intestines.
Duodenum—One of the small intestines.
Sternum—The breast bone.
Pleura—The lining membrane of the chest.
Bronchial vessels—Air vessels.

HORTICULTURE.

KITCHEN GARDEN FOR OCTOBER.

This is the last month for finishing all material sowing and planting before winter. A few articles only are to be sowed, but several planted and pricked, some for winter supply, and others to stand the winter for early and principal crops, next spring and summer. At this season, likewise, several present crops will require to have a thorough clearing from all autumnal weeds; others earthing up, and some a peculiar winter dressing.

Sowing is now required in only three articles for early production next spring and summer, viz: peas, lettuces, and radishes; and small salading for present supply.

Planting must now be completely finished in all or most of the following crops: celery, endive, cabbage-coleworts, cauliflowers, brocoli, borecole, garlic, shalots, rocombole, mint, balm, beans, &c., and several plants for seed, as cabbage, savoys, carrots, onions, parsnips, red beet, turnips, &c.

Aromatic plants, in beds and borders, should now have a thorough cleaning and dressing, if not done in the preceding month, cutting away all decayed stalks of the plants, hoeing off all weeds, digging between some that stand distant, others close growing, and spreading earth from the alleys over the surface of the plants.

Jerusalem artichokes may now be dug up for use, and towards the latter end of the month all may be taken up for keeping in sand the winter.

Cut down the stems of the asparagus in the beds of the last spring, hoe off the weeds, dig the alleys, and some of the earth over the beds.

Plant out, finally, some of the strongest cabbage plants, sowed in August, two or three feet distance, or some closer to cut young. Plant also for coleworts a foot distant for spring.

Your main spring sowed crops of carrots being now arrived at full growth, take them up towards the latter end of the month, for steeping in sand all winter. Cut the tops off close cleaned from the earth, and, when quite dry, let them be carried under cover, and placed in dry sand, or light dry earth; a layer of sand and carrots alternately.—Young carrots of the autumn sowing in July and August, clear from weeds, and thin where too close; the former sowings for present use, or young winter carrots, the latter for spring. Large carrots for seed, plant in rows two feet distance.

Manure your grounds, where it is required, with rotten dung of old hot beds, especially where the hand-glass crop of cauliflowers and early cabbages are intended. Dig ground for present planting with proper crops of the season, and also at opportunities, ridge vacant ground to lie fallow, and improve for future sowing and planting.

Continue to tie up full grown plants of endive in dry weather, every week to blanch. Plant endive for the last late crop, in a warm border, to stand till spring.

Hoe cabbages, coleworts, brocoli, savoys, and turnip-cabbage, cutting up clean all the weeds, and drawing earth to the stems of the young plants.—Likewise hoe winter spinach, thin the plants, and destroy all the weeds.

Horse-radish is now at full growth to be dug up for use as wanted, by trenching along each row to the bottom of the upright roots, cutting them off close to the bottom, leaving the old stools for future production.

Lettuces of the two last months sowing must now be planted in warm south borders, or in some dry corner sheltered from the easterly winds, five or six inches distance, to stand for next spring, and an early summer crop.

Parsnips being now at their full growth, dig up a quantity, and lay them in the sand, in the same manner as directed for carrots.

Potatoes, which have now arrived at their full growth, may be all dug up, and housed in some dry close place, thickly covered with straw, from the air and moisture, to keep all winter, till spring or summer.

The winter crop of spinach should now be well cleared from weeds, by hoeing or hand-weeding, and the plants thinned, where too thick, to four inches distance, or left close, and thinned out as wanted for use, now and in winter, &c.

Seed plants of several sorts should now be planted, as cabbage, savoys, of the full cabbage divested of the large leaves, and put in by trenching them down to their heads, two feet distance; as also carrots, parsnips, turnips, and red beet, all of full growth; cutting the tops off near the crown, and planting them two feet distance, with the heads one or two inches under the surface of the earth. Also the largest dried onions planted in rows the same listance by a foot in the row, and three or four nches deep over the crowns.

PLUMS.

The Preparation of Prunes.

. Editor:

As some of your readers are anxious, I know, to n the process of making prunes, I send you the owing description of it, extracted from the French ks.* It is, you will perceive, exceedingly sim- and may be practised to any extent in this coun- Skill and industry might, doubtless, make it ofitable a business here as in Europe.

he plums must be gathered with the hand, w perfectly ripe. They cannot be too sound; an h as fall or are punctured by insects should be re d. Arrange them on plates or sheets of iron so t to touch one another, and put them in an ove er the bread has been taken out. While ther n and move them occasionally. When becom l. pack them compactly in boxes and secure n from moisture. If they are not dry enoug en withdrawn from the oven, place them in the ; for it would render them too dry and hard, bject them to the heat of an oven a second t In choosing prunes, prefer those that are ne t and fleshy. They will keep upwards of two ."

"Pru ay be made of almost every sort of plum th eaten. But those that are considered the best the purpose, are the *gros damas de Tours*,† t *mpériale violette*,‡ and the *impératrice violette*.‡"

There is another preparation of plums, in which they are called *brignoles*. "For them are used chiefly, and almost exclusively, the *white perdrigon*, (see Prince's Catalogue, plums, No. 103,) which is a very fine sweet fruit. At the village of Brignoles, in Provence, in France, where this preparation was first made, the *perdrigon* plum is steeped in hot water to loosen the skin, then peeled, and then split open to remove the stone." The rest of the process is the same as in the preparation of ordinary prunes; that is, the drying in an oven and in the sun, and the packing away in tight boxes. The only difference is, I should suppose, that less heat must be applied to the *brignoles* than to *prunes*.

Besides the various preserves and sweatmeats that are composed of plums, the French peasantry make a liquor of the wild plum, by crushing it in water and letting it ferment. Amateur.

WINE AND SILK.

There is, perhaps, no country in the world where the vine grows more luxuriantly and abundantly than in North Carolina—and mulberry trees of the largest and finest growth are to be found every where in our state. It is a matter of astonishment that *all our farmers* do not make wine, *at least*, if not silk. A farmer in South Carolina, last year, from four acres of land, sold wine to the amount of $2,400. A *few* of our farmers have small vineyards, but we would like to see it become *general*—for if cheap wine could be substituted for the miserable whiskey that is now doing so much injury in our country, it would have a most happy effect. Not only would its extensive culture give a greater scope to agricultural industry, but it would yield a greater revenue to planters, *by far*, than our present crops. One of our most respectable farmers in the vicinity of Newbern, last year, succeeded perfectly well in raising silk worms, and has on his estate a grove of 300 mulberry trees. [*Newbern Sentinel.*

AMERICAN GRAPES.

J. S. Skinner, Esq. *Halifax, N. C., Sept.* 10, 1828.

Sir,—I send you enclosed some grape seed; the vine grows in a small island of Roanoke, a few miles above the Great falls. It is surely the only vine of the kind in the state, perhaps in the world. I have had all the islands carefully examined, and another cannot be found. Its colour is purple, about one-third larger than the common grape of the wood, slightly elongated, a difference in shape that distinguishes it from all others; in its flavour it is unrivalled, and when eaten diffuses a most grateful perfume. I prefer it to the Scuppernong. How it may succeed as a wine grape, no one can say; but for the table it equals the best French grapes.

The late Gen. Allen Jones found a vine of the same kind in an adjacent island, about thirty years since, which he removed to his garden, where it throve well and bore luxuriantly, but at his death, which happened a few years after, it was lost. That from which I send you the seed has been known for some years to the Trappers on the river; who described it to me as being of the same kind with the one found by Gen. Jones. For three years I failed to get some of the fruit; this season I got a few bunches, when its fine flavour and rarity determined me to propagate it both by seed and cuttings, and through you to offer them to those who wish to cultivate the finest vine of this, and I believe of any country.

Yours, respectfully,

A. J. DAVIE.

P. S. General Jones called it the Perfume Grape.

At the proper season I will send you cuttings; it is but a single small vine. These seed* should be directly placed in rich alluvial soil—they will come up next spring. I should be glad to have some directions how to put up the cuttings, and how to direct them.

My grandfather, the late Gen. Jones, who was the first botanist of the southern states, and curious both in shrubs and vines, considered this as the finest grape in his collection, and he had a great variety. D.

Philadelphia, 9th mo., 12th, 1828.

Friend J. S. Skinner,

Enclosed are a few seed of a large native grape. The berries are about three inches in circumference; their colour, when fully ripe, (which is now the case,) is black. They grow about ten miles south of Philadelphia, near the town of Woodbury. I have sent some seed into the state of New York, about 1° 45 north of Philadelphia, and wish some to be planted at a similar distance to the south.—Please to have some of them planted near Baltimore, and the balance planted about 1° 45 south of Philadelphia; with a request that if they should succeed, a description of the fruit may be forwarded to us.

Respectfully, thine, &c.

SAMUEL WEBB.

LADIES' DEPARTMENT.

LARD LAMPS.

Mr. Skinner, *Elkton, Sept.* 22, 1828.

Impressed, as I am, that but a very small portion of the inhabitants of our country are acquainted with the great convenience and economy of Lard Lamps, and conceiving that a word or two on that subject may subserve the interests of all classes of society, I cannot refrain from requesting a brief place in your useful journal, as the most proper organ of communication on subjects touching our common concerns.

It appears to me perfectly demonstrable, that a saving of five hundred per cent. may be effected by the use of such a lamp as I shall now describe, in the place of candle light on some occasions. Take a common sized tea-cup, or any similar vessel, and fill it with lard; then take a scrap of paper and twist it tightly in the middle, so as to make a small point project up about three quarters of an inch for a wick; then cut the paper round, so as to lie in the cup, covered about a quarter or half inch deep with the lard, leaving a slight projection of the little wick from the centre. Thus you have a lamp that will last three whole nights in succession. It is simple, is within the power of any family to obtain, and for burning all night in the chimney of a sick room, is infinitely to be preferred to candle light, as it is so much cheaper. Now to the proof. The cup thus filled. will contain less than ¼ lb. of hog's lard at 10 cents per pound—say for three nights,

	cts.
three nights, ...	.02
To come at the cost of one night, deduct that of two nights, ...	.01 1-3
	.0 2-3

Which shows the cost of light for a whole night, say nine hours, to be only two-thirds of a cent—at which rate such a light, burning all night every night, would only cost, for a whole year, $2.43⅓ cents. Now to show the difference between that and candle light, in point of cost, it is only necessary to proceed as follows, viz: it requires three

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[*] *L'école* rdin Fruitier, par M. De La Bretonnerie, revised and mented by the author of the *Bon Jardinier*.—Pari 8, two volumes.

Cours com u *Dictionnaire Universel d'Agriculture Pratique*, &c., e *Abbé Rozier;* revised, corrected and augmented by teen persons, in 7 vols.—Paris, 1815.

† The *gros* *de Tours* (large damask of Tours,) is not mention t least under its French name, in Mr. Prince's gue. What its English name is, therefore, I do now. It is thus described in the books already ed to: the tree grows to a large size, and is apt, a standard, to drop its flowers; the fruit is rathe , of a moderate size; has a deep violet skin, flour r, and adhering to the flesh; the flesh is yellowish, st white, fine grain and firm; the juice is sugary, an the peculiar flavour of the damask plums. It i ed, that if the skin, which will not separate from esh, did not communicate to it a disagreeable smel plum would be excellent.

‡ In the books ref to, *impériale violette*, and the *impératrice violette* are described as separate plums; but in Prince's catalogue (No. 46, plums,) they are both included in one. Perhaps the *impériale violette* may be what he calls (No. 19,) the *purple egg or red imperial.*

[* They have been handed over to Doctor Monkur, Corresponding Secretary of the Maryland Society for promoting the Culture of the Vine.—Ed. Am. Far.]

candles of nines to the pound to burn one night, (say nine hours,) which, at 12 cents per pound, is	$ .04
At which rate, the use of that much candle light per night for a whole year, amounts to	14.60
In order to ascertain the difference, deduct cost of lard light, . . .	2.43 1-3
	$12.16 2-3

Which shows a difference of just five hundred per cent.

Now, admitting that there are six hundred families in this county, which I believe is quite within the actual number, and supposing each family to use that quantity of light per night, it amounts in the use of candle light to	$8760 00
But in that of the lard light, to only	1460.00
Shewing the enormous waste of	$7300.00

So that as small sands form the mountain, and economy is said to be wealth, perhaps it would be as well to keep our top-eye open a little sharper toward those smaller items of family expenses.

Franklin.

N. B. It appears to me that the above light may be adapted to many purposes; such as coarse sewing, carpentering, shoe-making, &c.

THE PLACE OF REST.

I am weary of life, I am tired of the earth,
Of its dark sorrows and boisterous mirth,
Of its changeful scenes, its uncertain joys,
Its wo that frowns, and its pleasure that cloys,
Of its dreams that delude the youthful breast:—
—Would that I could find me a place of rest!

I sought in a land far beyond the sea,
Where the flowers came forth in radiancy,
Where shone the clearest and sunniest sky;
But, alas! I found that the flowers would die,
That clouds would o'ershadow the heaven's blue breast;
And I left it,—for me 'twas no place of rest!

I returned again to the spot of my birth;
But change had come on its cheerful hearth;
Some were now wanderers o'er the far wave,
Some were at peace in the lonely grave:
There were still some hearts that were not estranged;
But, except their affections, all things were changed!

There were voices beloved, but the tremulous tone
Told of the years that had over them gone;
There were brows that, scarce touched by time's darkening wing,
Looked like the lingering flowers of spring;
There were smiles—but they only shone on decay,
Like the fading light on the dying day.

There were heads with whose sunny clustering hair
Was mingled the early snow of care;
There were eyes,—but where was their once bright hue?
A mist of tears had come over their blue;
Oh! I brook'd not to look on such altered things,
And I stayed not there my wanderings.

I went to fair cities, and in the crowd
I mingled awhile with the gay and the proud;
I strove to be happy, I strove to smile,
But the days pass'd heavily on the while;
And though every hour with mirth was fraught,
It bore not within it the peace I sought.

I fled away into solitude,
I hoped to find quiet by mountain and wood;
But, alas! when the spirit would use its wings,
And mingle with grand and glorious things,
'Tis fetter'd by clay to its mortal sphere:
—Rest there was none for my bosom here.

I sat me down 'neath the midnight sky,
The bright stars sparkled like gems on high;
Before me lay the mighty deep;
Still murmuring on in its peaceless sleep—
And I thought, as I looked on its heaving breast,
"There is, indeed no place of rest!"

But there came a still small voice through the gloom,
"Thing of the dust! return thee home;
Is it thine to repine at the will of Him
Before whom yon glorious stars are dim?
Pray that sins may be forgiven;
Hope for a resting-place in heaven."

Mary Anne Browne.

Why are the ladies like stage-drivers?—Because they generally secure the *mails.*

When is a door not a door?—When it is *a-jar.*

SPORTING OLIO.

HUNTING.

The season is at hand, when

"At the sound of the horn
We rise in the morn,
And waken the woods as we thunder along,
Yoix, yoix, tally ho!
After Reynard we go,
While echo on echo redoubles the song;
We waken the woods as we thunder along,
Tally ho, tally ho,
After Reynard we go,
While echo on echo redoubles the song."

At Washington the campaign has opened with good sport on the *gray* ground. Their pack is young but of the best blood, being chiefly from Terret's old Ruler and broken-leg Ratler, (alias Old Industry,) and from Spring, from the Eastern Shore of Maryland, and the late celebrated Juno. The young dogs have been entered with the advantage of an early taste of blood, always to be had where gray foxes abound.

According to recollection of the old pack, says an honorary member, and the young dogs to be entered this season, the District Club Pack, counts thus:

Hickory—out of Spring by Ratler.
Leader—Juno by Ruler.
Maria—Ditto by Ditto.
Morgan—Spring by Ratler.
Rat—Ditto by Ditto.
Blue-cap—Juno by Ruler.
Nettle—Ditto by Ditto.
Juno—Ditto by Ditto.
Sting—Ditto by Ditto.
—— a white dog from Fort Washington.
Slim,
Sportsman,
Cæsar,
Tyro,
Ranger,

And, though last not least, old True Penny, alias Industry, alias Old broken-leg Ratler.

Mr. Skinner, *Warrenton, Sept. 23, 1828.*

Sir: The liberal spirit evinced by your association for the improvement of the breed of blooded horses induces me to forward you, for publication in "*The Farmer*," a correct account of the

WARRENTON, N. C. RACES.

Last year of the Subscription, Fall Meeting, September, 1828.

Tuesday, 16th.—Jockey Club Subscription, first choice of tickets $10 each, to the amount of $200—2 mile heats, course 7 yards over a mile, and very heavy.

J. M. West's s. g. Pawnee, by Shawnee, 4 ys. old—83 lb.	1	1
J. J. Harrison's gr. h. Geo. M'Duffie,	2	2

Time—1st h. 4 m. 2 sec. 2d h. 4 m. 3½.

1st mile in 2d heat, 1 m. 57 sec. won easily.

Wednesday, 17th.—A purse of $100 in money, given by the proprietor, and the balance of the subscription, $260, in doubtful tickets to close the subscription. Mile heats, best three in five, distance 90 yards.

J. J. Harrison's b. m. Susan Robinson, by Sir Hal, 5 ys. old, 107 lb.	1	2	1	1
Jos. K. Bullock's gr. f. by Sir Archie, 3 ys. old, 83 lb.	2	1	2	2

Wm. M. West's b. c. by Sir Archie, distanced.

The winner ran two miles with her rider for the first heat. The 2d heat was won by about the hips. The 3d to the point of the shoulders. The 4th easily.

Time—1st h. 1. 57. 2d h. 1. 58. 3d h. 1. 59. 4th h. 2 m. 1 sec. The gray filley is considered a very promising 3 ys. old, being large and evincing both great speed and capital bottom. She was evidently in bad order and badly rode.

The first day was memorable for a melancho
accident happening to Mr. James Boyd, a promisi
and wealthy young gentleman, who was thrown fr
his horse and killed as he was returning from
race course to the village.

Respectfully yours,
JAMES SOMERVELL,
One of the Stewar

(Items from late English papers.)

The Oaks.—It is considered a curious ci-
dence, that the winner of the Oaks was ridde J.
Day, the second horse by W. Day, and the t by
S. Day. A wag remarked that, although t ace
only occupied two minutes and forty secon the
winning, it was a work of three *Days!*

Foot Race on the Roodee at Chest *Che-*
shire against Flintshire.—A match for 110 , dis-
tance 160 yards, came off on the race cour Ches-
ter on Monday afternoon, between Samuel st son
of Mr. Joseph Lewis, who keeps the In Coat-
brook, near Tarporley, and Edward vies of
Hope, in the county of Flint. Both th en (nei-
ther of whom had ever been beaten), already
obtained some local celebrity; Davies ing beat
the Holt and Wrexham runners, and vis being
well known among his neighbours, here For-
esters, as nothing but a good one, and ng among
other feats let Admiral Tollemache i secret, by
beating an Epsom runner whom th lant Admi-
ral brought down to compete with young For-
ester. The friends of both partie e each very
confident of success; and the Wels were back-
ing their countryman freely at 4 , and 6 to 4,
with plenty of takers. The men an excellent
start, by signal, each setting off he top of his
speed. After the first fifteen ya here was not a
shadow of a chance; it was all mbard street to
Rag Fair on Lewis. He darte lead about four
or five yards and maintained t periority, occa-
sionally turning round upon h ponent and urg-
ing him to mend his pace! I the distance in

15 seconds; and if the ground had not been so heavy, or if he had wished to make greater exertion, he could have done it in less time. The Welshman looked exceedingly blue at the defeat the Principality sustained, and the young Cheshire hero was borne off the field in triumph amidst loud shouts of *Cheshire for ever.* We understand that Lewis's father, who is an extensive farmer, and is himself no mean proficient in athletic sports, as those can tell who have felt the weight of his "bunch of fives," will back him for *l*50 a-side against any man in England for 160 yards.

Pedestrian Feat.—Cootes, the pedestrian, at 9 o'clock on Thursday evening, accomplished his arduous task of walking 1250 miles in 1000 successive hours. Cootes did his last mile and a quarter with amazing speed. This match throws that formerly accomplished by the celebrated Captain Barclay completely in the back ground. Cootes has fallen away two stone since the commencement of the match.

MISCELLANEOUS.

Stevens' Steam Paddles.

This invention is a method of propelling vessels by the agency of a series of paddles attached to a three-throw crank, with the aid of steam or other power; and which may be used as a substitute for undershot water wheels, &c. The chief advantages obtained by this method over the common wheel are—1st. As the inventor's paddles work in a vertical position (with sufficient allowance for the impetus of the vessel,) they cause a saving of the power now consumed by the descending and ascending paddles, and produce an increased application of power, as illustrated by an accompanying comparative statement. 2d. The avoidance of unpleasant vibration and consequent wear and tear in the vessel and engines; and also of the run of backwater, which is so very dangerous to wherries, &c.; and has hitherto been the means of preventing the introduction of steamers upon canals. 3d. The capability of increased velocity, commensurate with the power applied, not being governed with the maximum of motion that limits the revolutions of the common wheel. The following is a comparative statement of the application of power between a common wheel, whose paddles are 7½ feet long and 1½ feet deep, and the inventor's paddles, fitted in the same space from the vessel's side: Common wheel, a paddle 7 feet 6 in. long, and 1 ft. 6 in. deep, gives a square surface of 11 ft. 3 in.; say there are always two immersed, which gives 22 ft. 6 in.; deduct one-third, the quoted allowance for the loss of power on the descending and ascending paddles, 7 ft. 6 in., leaving 15 feet. The inventor's method: Taking his paddles at 2 feet wide and 2½ ft. deep, each present a surface of 5 ft.; he has always four paddles immersed, which makes 20 ft.; and as each set, of four paddles, describes the segment of an elipse in the water, instead of that of a circle, he is surely within bounds to take one-fifth part, 4 feet; giving in all 24 feet. showing a very considerable advantage in favour of the invention, besides the capability of increased velocity. It is presumed that, in many instances, the application of this invention to vessels already fitted with steam engines, will increase their velocity more than one-third; while for new vessels, engines of about forty horse power will be equal to the work now performed by those of sixty, thereby causing less draft of water, greater despatch, affording more stowage for goods, and better accommodation for passengers. Compared with the various improvements on the paddle wheel, already published, specified, or exhibited, this invention has in all instances some, and in some instances all, of the following advantages:—1st. Great reduction of friction, and consequent durability and comparative cheapness. 2d. Simplicity of construction—admitting of repair, unshipping, or replacing, even at sea. 3d. Equal applicability in propelling vessels a-head or astern. 4th. The machinery being easily taken to pieces, and packed in a much less space than would be required for a wheel, additional sets may be conveniently taken on long voyages. 5th. An accident occurring to one set, (or even two out of three on either side,) would not prevent the working of the remainder.

(From the New England Farmer.)

Employment of Time.

Mr. Fessenden,—Your repeated favours induce repeated demands upon your goodness. I should like to add to your hints, inserted in your last upon the improvement of the winter evenings of farmers. If farmers benefit themselves by weekly social meetings, they may confer a still greater benefit upon their sons and their daughters. If a subject upon agriculture or domestic economy, say the raising, use, and preservation of fruit—the management of a garden, or some particular vegetable, of a dairy, of poultry, or of fuel, should be prepared at one meeting for consideration at the next, it would naturally, and almost necessarily, become the topic of conversation at the table and fireside, both before and after the regular discussion. Conversation upon a particular and important subject would create a desire for reading, and this desire would lead to the possession of books, and periodical and weekly journals which treated upon it. The natural consequence would be, that conversation and social intercourse, the channels of almost all the information and habits, both good and bad, which exist in the world, would be purified and elevated. Topics of conversation would be immediately changed. Substantial improvements upon farms, domestic economy and convenience, the principles of science which ought to direct, in the construction and uses of farming utensils, the laws of heat, upon which the economy and success of the management of fuel depend; and consequently natural philosophy, chemistry, general science upon matter, intellects and morals, would, in conversation, take the place of a fashionable dress, or novels, the shape of a leghorn, the colour, form or position of a bow most fashionable upon head dresses, and what is still lower, of petty scandal. And consequently good would be done and evil prevented.

Franklin.

Soundness of the Lungs.

Dr. Lyons, of Edinburgh, proposes an ingenious and practical test for trying the soundness of the lungs. The patient is directed to draw in a full breath, and then begin to count as far as he can, slowly and audibly, without again drawing in his breath. The number of seconds he can continue counting is then to be carefully noted. In confirmed consumption, the time does not exceed eight, and is often less than six seconds. In pleurisy and pneumonia, it ranges from nine to four seconds. But when the lungs are sound, the time will range as high as from twenty to thirty-five seconds.

Muscular Power.

A Turkish porter will run along carrying a weight of 600 pounds; and Milo, of Crotona, is said to have lifted an ox, weighing upwards of 1,000 pounds. Haller mentions that he saw an instance of a man, whose finger being caught in a chain at the bottom of a mine, by keeping it forcibly bent, supported by that means the weight of his whole body, 150 pounds, till he was drawn up to the surface, a height of 600 feet. Augustus II, King of Poland, could with his fingers, roll up a silver dish like a sheet of paper, and twist the strongest horse shoe asunder; and a lion is said (Phil. Trans. No. 310) to have left the impression of his teeth upon a piece of solid iron.

Temperature of the Earth.

M. L. Cordier, in his essay read to the French Academy of Sciences, deduces from his own observation and those of others, that the heat increases as we penetrate from the surface towards the centre of the earth, at the rate of about one degree Farenheit in 45 feet; that the heat of boiling water is found in our latitudes about a mile and a half below the surface; that at the depth of 60 miles, the heat must be so intense as to keep such rocks as we see at the surface in a state of fusion; that the interior of the globe, in short, consists of a molten mass, encompassed by a solid crust or shell, about 60 miles in thickness.

The manufacture of steel has been commenced, with great success in Pittsburg. Specimens have been produced said to be equal to the best "*Crowley*" steel.

THE FARMER.

Baltimore, Friday, October 3, 1828.

☞ The article on the Rideau Canal, promised in a previous number, has been unavoidably postponed; we hope to find room for it in our next.

☞ Sheep Wanted.

"The Editor of the American Farmer will much oblige some of his lower county subscribers if he will inquire through the medium of his useful paper, where they can procure a few Bakewell sheep of the best blood, particularly bucks, not less than one or more than three years old, and what will be the probable price, and whether they could be delivered at Baltimore or any part of the western shore. *A Subscriber of Anne Arundel Co.*"

[The Editor takes this opportunity to say that frequent inquiries for the same race of sheep have been made, but he has not been able to give a satisfactory answer. The fact is, that Maryland farmers either believe it will not pay them for the trouble, or they will not take the pains to keep up any distinct race of animals. They get the full blood this year, and before their qualities can be made known and the animals come into demand, they let their blood get mixed indiscriminately with others of the same species, and the degrees of different blood can no longer be precisely known.]

☞ We take occasion to recommend gentlemen who have animals of more than ordinary value for sale, to bring them to the cattle show for sale on the 16th day of this month.

Whether they be horses—mares—improved cattle—Bakewell sheep or Southdown sheep, or mixed blood of these two; and it will be much better if they will advertise in this paper what they mean to bring, we will insert gratuitously any thing to be sold at the cattle show. Though in many cases public sales on satisfactory terms may not be effected, yet it will always happen that private sales or exchanges may be effected highly satisfactory and advantageous to all parties. By being previously advertised, people will come on purpose to purchase.

New Wheat—Garden Seed, &c. from the Mediterranean.

"Dear Sir, *Baltimore, 19th Sept. 1828.*

"I take the liberty of presenting you, with a small sample of wheat, a little cabbage, lettuce, turnip, and onion seed, which I obtained on the coast of the Mediterranean. The grain of the wheat, you will perceive, is large, full and flinty; and it is said, resists the action of the fly. The garden seed, are offsprings, each of their kind, of very superior vegetables; and if they should not deteriorate by a cis-atlantic transplantation, I have no doubt, will prove useful, as well as healthful anxiliaries to the other dishes of the table. I beg, that you will accept of those little fruits of my late voyage, as a slight token of gratitude, for the many favours that I have received at your hands; and as an evidence of my opinion of your superior skill, in disposing to proper use, such articles of foreign growth, as are, or may be likely to benefit our highly favoured country.

Permit me to subscribe myself with very sincere respect,

Your friend and most obedient servant,

J. S. Skinner, Esq. JAMES PAGE.

☞Plaster of Paris.—A very enlightened and scientific correspondent has received a letter from a friend in France, making inquiries relative to the experience of American agriculturists in regard to Plaster of Paris, The substance of his inquiries is embodied below, and are published for the sake of obtaining early information from those who are conversant with the subject.

"Mr. Skinner would greatly oblige Dr. Chatard by giving him his opinion on the following questions concerning the Plaster of Paris; viz:

1st. Is that substance used now, as much as formerly?

2d. In what quantity is it used?

3d. Is it a real manure?

4th. How does it act?

5th. What sort of lands does it suit?

6th. Is it true that after one or two crops, the land on which it has been thrown, is much impoverished? If so, why and how?"

Ratoon Cotton.

Wilkinson County, Miss. Sept. 1, 1828.

Mr. Skinner:

I send you a sample of the seed of *Ratoon Cotton* from the old stalk. The staple is much superior to that which comes from the seed of this year; it ripens much earlier, and it has a greater number of boles. Besides I can discover no rot. I have a great quantity of the ratoon cotton growing in my corn field, without any culture whatever. The corn or weeds do not seem to injure it. In this county, if we had made the discovery, a great saving of labour might have been produced, by not ploughing up the old root. I have planted corn between the *rows* of the old stalk, and have cut the stalk about two inches above ground. I have seven acres of the ratoon cotton, standing almost entire; it was not *hoed* until *July*, and it is now as high as any other cotton, and equally well boled. I have growing in the same field with the cotton, Indian and Guinea corn, which was not planted till July, and it is now in roasting ear, and part of the Guinea corn bearing. With respect, your ob't.

WM. HAILE.

The following article from the Alexandria Gazette, on a subject now occupying much attention, as there is a prospect of rise in the value of wheat and flour in Europe, gives information material to an accurate calculation.

The English quarter of wheat weighs 560 pounds, being a quarter of a ton—this is equal to eight English bushels of 70 pounds each, or 9½ American bushels of 60 pounds each. This computation should always be attended to in bringing the English quarter of wheat into American bushels.

The English sack of flour weighs 280 pounds—7 sacks equal to 10 American barrels, 1960 pounds.

GENERAL LAND AND INTELLIGENCE OFFICE,

Fayette-st., basement of City Hotel, Baltimore.

For the sale of cultivated and uncultivated Lands, Farms, Building Lots, Houses, &c. in all parts of the union, and adjoining territories, where owners and others concerned in lands, &c. can send a description of their property, prices and terms of payment, to be recorded in books kept for that purpose, and thereby enable purchasers to ascertain information respecting real estate, &c. To procure money on bond and mortgage; to attend to all the agencies connected with the different state offices; to make inquiry respecting lands that have been sold by the comptroller for taxes that remain unpaid, let the owners know the result, if required, and the sum necessary to redeem the same.

Also to act, as agent to purchase merchandize, household furniture, country produce—the stock and fixtures belonging to persons declining any kind of business, &c.

In soliciting subscribers to domestic and foreign publications, &c. Likewise attend to supply Merchants, Canal and Rail-road contractors, proprietors of manufactories, and others, with clerks, foremen, all necessary help, &c. also with partners, who can advance small or large capitals.

N. B. Young or middle aged men can always, by complying with the terms of this office, secure mercantile, or any other respectable employment in the city, union, or any otherpart of the globe.

My terms are as follows:—Lands, Houses, Lots, Merchandize, &c. registered for sale, $2 in advance—postage on all letters paid; for searching state offices, $2 in advance, postage paid; for procuring situations, &c. from 3 to 5 dollars, postage paid on all letters, or else business and letters will not be attended to.

☞ This rule will be strictly enforced in all cases.—Postmasters will please to frank their letters. It will be necessary to have correct maps and descriptions, &c. of lands, &c. left in the office for sale. And when sales are effected, or employment, &c. procured by me, a moderate and reasonable commission will be exacted.

There is, without exception, in this city, no office of the kind conducted upon the same principle and system as mine—and the extensive domestic and foreign acquaintance and correspondence attached to this office render it a general benefit to all, far or near.

It is the general opinion of its patrons and others, that it will be a great accommodation, not only to proprietors, but also to different local land agents in various sections of the state, union and the adjoining territories, as well as others who may have business here. The local situation of this city, as being a very enterprising and a great seaport town, and where, at all seasons of the year, there is a great resort of persons, not only from all parts of the United States, but from all parts of the globe—being a great thoroughfare from east to west and from north to south, seems to demand an establishment of the kind.—With a sincere hope that it will meet public approbation and support, I subscribe myself GEO. W. EVERITT, *Proprietor.*

N. B. Having an interest in an office in New York, and agents in other cities will enable me to execute business there as well as here, to satisfaction. G. W. E.

WANTED,

A person who understands the business of a *Vine Dresser*—one who is well acquainted, not only with the cultivation of the vine, but with the most approved process of making wine would be preferred. The advertiser proposes to furnish him with a house to live in, and to allow him a portion of the profits of the vineyard for a certain number of years. The applicant will be expected to produce satisfactory evidence of his sobriety, industry, and fitness for the situation.—Inquire at the office of the American Farmer.

Oct. 3, 1828.

FOR SALE,

The undermentioned thorough bred Mares and Colts.

No. 1. A sorrel, mare 8 years old, by Oscar, in foal by Rattler, with a colt by her side, got by Marylander, which was got by Rattler.

No. 2. A very handsome colt, two years old, out of No. 1, by Rob Roy.

No. 3. A sorrel mare, 5 years old, by Rattler, in foal by Rob Roy.

Pedigrees at large in possession of Mr. Skinner.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c.; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36 Pratt-st., Baltimore.

☞Blacksmith and other repairs done in the best manner, and at the usual prices. Also, Turnip Seed and a few boxes of Shakers' Garden Seeds, for sale.—Orders received for Fruit Trees.

FOR SALE,

A young Jack, 4 years old, well formed, good size, very promising and vigorous. He will be sold at a moderate price, or given in exchange for a pair of young, well broken coach horses.—Address, (post paid) to J. G. C., Port Tobacco, Charles county, Md.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. The Inspections for the week was 319 hhds. Maryland, 23 hhd. Ohio, 4 hhds. Virginia.

Flour—white wheat family, $7.00 *a* 7.75—superfine Howard-st. 6.00 *a* 6.25; city mills, 5.75 *a* 6.00; Susquehanna, 5.50 *a* 5.75—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.10 *a* 1.15—best white wheat, 1.20 *a* 1.30—ord'y to good, 1.00 *a* 1.10--Corn .38 *a* .40—Rye .40 *a* .43—Oats, bush. .20 *a* .22—Beans, 1.00—Peas, .50 *a* .60—Clover seed, 4.50 *a* 5.00—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 22½ *a* .23—bbls. .25—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts., where printing of every description is neatly executed.

AGRICULTURE.

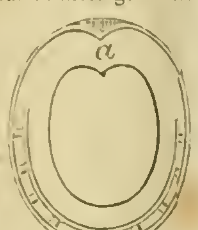
(From Loudon's Encyclopædia of Agriculture.)

THE SHOEING OF HORSES.

(Continued from p. 226.)

The shoes for the hind feet are somewhat different to the fore, being a little squarer at the toe for about an inch; to which squareness the hoof is to be also adapted by rasping it slightly so, avoiding, however to do it injuriously. By this mode a steady point of bearing is afforded to the hinder feet in the great exertions they are often called upon to make in galloping, leaping, &c.

They are, when thus formed, less liable, also, to interfere with the fore shoes by clicking. When horses *click* or *over-reach* very much, it is also common to square, or rather to shorten the toes of the hinder shoes; but not to do so by the horn; by which, the hoof meets the middle of the fore shoe instead of the shoe itself; and the unpleasant noise of the stroke or click of one foot against the other is avoided.

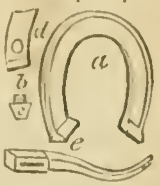


Varieties which necessarily occur in shoeing. The *bar shoe* is the most important variety, and it is to be regretted that so much prejudice prevails against the use of this shoe, which can only arise from its supposed unsightly appearance as betokening unsoundness.—As a defence to weak thin feet it is invaluable, as it removes a part of the pressure from the heels and quarters, which can ill bear it, to the frog which can well bear it; but a well formed bar shoe should not have its barred part raised into an edge behind, but such part should be of one uniform thickness throughout the web of the bar, which, instead of being the narrowest should be the widest part of the shoe. The thickness of the bar should be greater or less (*a*) so as to be adapted to take only a moderate pressure from the frog. When the frog is altogether ulcerated away by thrush, the bar may be altogether plain; but this form of shoe is still the best for these cases, as it prevents the tender surface from being wounded. In corns this shoe is invaluable, and may then be so made as to lie off the affected part, which is the great desideratum in corns.

The hunting shoe is made lighter than the common one, and it is of consequence that it is made to sit as flat to the foot as it can safely do without pressing on the sole: by which the great suction in clayey grounds is much lessened. Hunting fore shoes should also be as short at the heels as is consistent with safety to the foot, to avoid the danger of being pulled off by the hinder shoes; nor should the web project at all. It is the custom to turn up the outer heel to prevent slipping; which is done sometimes to both fore and hind feet, and sometimes only to the latter. As this precaution can hardly be avoided in hilly slippery grounds, it should be rendered as little hurtful as possible by making the tread equal; to which purpose thicken the inner heel and turn up the outer. This is better than lowering the outer heel to receive the shoe, which still leaves both the tread and foot uneven.

The racing shoe, or plate, is one made as light and slender as will bear the weight of the horse, and the operations of forging, grooving, and punching: to enable it to do which, it ought to be made of the very best Swedish iron. Three, or at most four nails, are sufficient on each side; and to avoid the interfering of the hind with the fore feet, the heels of the fore shoes are made as short as they can safely be. As racers are shod in the stable, the owners should be doubly careful that the plate is an exact fit. Many pairs ought to be brought and tried before any are suffered to be put on, and which is more important than is at first considered.

Grass shoes or *tips*, are very short pieces placed on the toe alone, in horses turned to grass in summer; at which time they are essentially necessary to guard the fore feet, which otherwise become broken away and irretrievably injured. They should be looked at occasionally, to see that they do not indent themselves into the soles.



Frost shoes, (*a*.) have the ends turned up to prevent the foot from sliding; unless the turning up or calkin be hardened, they soon wear level and require to be renewed, to the injury of the foot by such frequent removals. To remedy this, many inventions have been tried; one of the best of these is that of Doctor Moore, in which the frost clip is made distinct and movable by means of a female screw (*b*,) worked in it, to which a knob or wedge (*c*,) and male screw (*c*,) are adapted; a key (*e*,) being used for fixing or removing it.

High calkins, or turn ups, however objectionable in general shoeing, yet, in precipitous counties, as those of Devonshire, Yorkshire, and of Scotland, &c., are absolutely necessary for their draft horses. It greatly obviates the evils of uneven pressure, if a calkin be also put to the toe; and it would be still better were these calkins steeled, particularly the fore ones.

The shoeing of diseased feet is necessarily very various, and is too often left to the discretion of the smith, by which the evils themselves are greatly aggravated, if he be ignorant. The most prominent alterations for these purposes will be found described under the respective diseases of the feet requiring them.

Horse pattens are in use by some cultivators who occupy soft or mossy soils. Those esteemed the best are constructed of alder or elm, and are fixed to the hoof by means of three links and a staple, through each of which passes a leathern strap that goes twice round the hoof, and is fastened by a buckle. The staple is placed behind the patten, which is ten inches one way, by ten and a half the other. The links are about three inches in length, and rivetted through pieces of hoop iron to prevent the wood from splitting. After numerous trials it has been found that pattens made in this way, answer the purpose better than any other kind.—(*Farmer's Mag.*)

Criteria of the Qualities of Horses,

For various purposes.

The general criteria of the qualities of a horse are derived from inspection and trial. His outward appearance, among judges, affords a pretty just criterion of his powers, and a moderate trial usually enables the same judgment to decide on the disposition to exercise such powers.

The criteria of a horse derived from his colour. As a general principle, dark are preferable to light horses, except in the instance of black, which has fewer good horses within its range, particularly in the lighter breeds, than any other. Grey horses are also, in some degree, an exception to the rule; for there are many good greys. Bay and brown are always esteemed colours.

The criteria of action are derived from a due consideration of the form generally, and of the limbs particularly; as well as from seeing the horse perform his paces in hand.

The criteria of hardihood are derived from the form of the carcass, which should be circular, or barrelled; by which food is retained, and strength gained, to perform what is required. Such horses are also generally good feeders.

The criteria of spirit, vigor, or mettle, as it is termed, are best derived from trial. It should always be kept in mind, that a hot fiery horse is as objectionable as a horse of good courage is desirable. Hot horses may be known by their disinclination to stand still; by their mettle being raised by the slightest exercise, especially when in company. Such horses seldom last long, and under accident are impetuous and frightened in the extreme. A good couraged horse, on the contrary, moves with readiness as well alone as in company. he carries one ear forward and one backward; is attentive and cheerful, loves to be talked to, and caressed even while on his journey; and if in double harness, will play with his mate. Good couraged horses are always the best tempered, and, under difficulties, are by far the most quiet, and least disposed to do mischief.

The criteria of a race horse, derived from form, are, that he have the greatest possible quantity of bone, muscle, and sinew, in the most condensed form. There should be a general length of parts, to afford stretch, scope, and elasticity, with great muscles hardened by condition, to act on the length of these parts advantageously. In particular his hind limbs should be furnished with ample thighs, and broad hocks, which should be low set. His fore arm ought also to be broad, and the knee, like the hock, should be near the ground.

The criteria of a hunter are, that he have somewhat similar proportions with the racer, but with more bulk to enable him to continue his exertions longer, and to carry more weight. In him, a good carcass is essentially necessary to fit him to go through a long chase; and the more, if he be required to hunt more than one or two days in the week. Some light carcassed horses will do one day's hunting work a week very well; but knock up at more. The hunter should be well formed in his loins, and well let down in his thighs to propel him forward in his gallop, and give him strength to rise sufficiently to cover his leaps. It is also of great use to a huater to be a good trotter; many such horses, when fatigued, break out of the gallop and relieve themselves by trotting, particularly over heavy ground.

The criteria of a hackney. If it be necessary that the hackney be well formed behind to give him strength, and to propel him forward, it is even of more consequence that he be well formed before; and in this kind of horse the hind parts are in some measure subordinate to the fore, as safety is preferable to speed. The head in the hackney should be small, and well placed on a neck of due length and substance to make a proper appui for the bridle; and that proper resistance to the hand, so pleasant to the feel, and so necessary for ease and safety. The shoulders should be oblique and well furnished with muscle, but not heavy; and the withers in particular should be high. The elbows should be turned rather out than in, and the legs should stand out straight, and by no means fall under the horse, or it betokens a stumbler. The pasterns should neither be too oblique, which bespeaks weakness; nor too straight, which wears the horse out, and is unpleasant to the rider. The carcass should be round, or the horse will be wasby and weak; the loins straight, wido and ribbed home; the thighs of good substance; and although the being cat-hammed, or having the hocks turned inwards, is defective in beauty, it often bespeaks a trotter.

The criteria of a cavalry horse are, that he have considerable extension of bulk or size, to enable him to carry weight, with good carcass to allow him to feed coarsely, and yet thrive at piquet or on service. He should have also liberty of action; but great speed is not requisite. The best cavalry horses are those formed of the united properties of hackneys, and very light draft horses.

(*To be continued.*)

AN ADDRESS,

Delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, August 19th, 1828; by ELIAS HORRY.

(*Continued from page 227.*)

In 1748, the celebrated peace of "Aix la Chapelle" was concluded, and immediately almost all the nations of Europe, by a sort of tacit consent, applied themselves to the study and practice of Agriculture; and even continued to do so, amidst the universal confusion, which succeeded.*

The greatest progress and improvements were made in France and in England, Mankind owes much to the perpetual emulation of those two countries; and they, at the period I have mentioned turned their attention, in a particular manner, to agriculture and to all the arts and sciences connected therewith. The French found, by repeated experience, that they could never maintain a long war, or procure a tolerable peace, unless they raised corn enough to support themselves in such manner as that they should not be obliged to submit to harsh terms on the one hand, or perish by famine on the other. Their king, therefore, thought proper to give public encouragement to agriculture, and was present at several of the experiments. Even during the distresses of war, attention was paid to agriculture. Prize questions were proposed in the Rural Academies, particularly at those of Lyons and Bordeaux; and many alterations were made by the society for improving agriculture in Brittany; and after peace, matters were carried on with greater vigour. The French also had paid great attention to manufactures; to plantations of white mulberry trees, and to the rearing of silk-worms. The culture of silk had been introduced into France, about the year 1600, by the great Henry IV. contrary to the opinion of his wise minister the Duke of Sully. At the period of which I speak, the silk manufactures had arrived at their greatest perfection, and produced an immense trade and revenue to the country; notwithstanding the revocation of the edict of Nantz, had caused very many of the most skilful of the protestant French weavers to take refuge in England; where they carried on their occupations, using therein the raw silk procured from Italy. The English also continued their agricultural exertions with great zeal. The pursuit was encouraged by men of the first rank and fortunes in the country, and agriculture was made to class with the other arts and sciences then progressing to perfection. A variety of implements and machines facilitating agriculture were invented. A third and improved edition of Mr. Tull's essay was published in 1751; and ploughs suited to the drill husbandry were improved on, so as to adapt them to every soil. During the years 1767 and 1768, Mr. Arthur Young commenced his valuable and well directed labours. He first published his six weeks, and afterwards his six months tour through the north of England.—These productions attracted the attention of practical agriculturists, to the improved methods of cultivation, pursued in parts of England very remote from each other; and shewed the great utility of experimental inquiries on the subject of agriculture. They were written in an easy and popular style, which rendered them fit for the perusal of every farmer; and by promoting and diffusing a taste for agriculture, they rendered essential benefit. I will mention here that about this period the celebrated navigable canal of the Duke of Bridgewater was completed. This was a great work, which did honour to the nobleman who projected and to Mr. Brindley who executed it; and served as a model for future canals. I must now turn towards our own country.

The colonies of North America, the thirteen which afterwards became the United States, had at this period advanced to a high degree of improvement. In some of them colleges had been endowed and flourished, and in all of them schools had been established, capable of laying the groundwork of an useful education. Besides, the sons of the more wealthy inhabitants were sent to England, where many of them acquired the learning of the English schools and universities. A continual intercourse was therefore kept up with the mother country; and also with the rest of Europe; whereby books, on all subjects, and in most languages, on agriculture and the other arts and sciences, were received as soon as published—were read, and information was generally diffused. The agriculture practised in England, was pursued successfully by those colonies known by the name of New England. The same may be said of the northern colonies generally; but in such parts of the country where the inhabitants were descendants of emigrants from other parts of Europe, the mode of agriculture in some measure varied. The descendants from the Germans still adhered to the broad cast husbandry, particularly for all winter grain. Similar remarks may be made respecting the southern colonies, except that their climate enabled them to cultivate with success, the rich productions of temperate latitudes. All the different grains and vegetables cultivated in Europe were grown in the colonies; and besides they cultivated the Indian corn, hemp and flax; also more southerly the sweet potato, beans and peas of every kind, tobacco, rice, indigo and cotton. Wheat, which grows best in a more northern climate, was raised in abundance northerly from North Carolina and Virginia. Tobacco grew every where: from Maryland southerly, it was a staple. Rice and indigo were the chief staples of South Carolina and Georgia. Corn, peas and potatoes were cultivated as provision crops, though they were often exported. The French, who after the revocation of the edict of Nantz, took refuge in South Carolina and settled near the Santee, and in the parish of St. Thomas and St. Dennis, brought with them not only their industry and acquirements, but some of the finest kinds of fruit which grew in France: I have always understood that they brought also with them the white mulberry. All the colonies produced and furnished naval stores. Some of them abounded in iron. The fisheries were confined mostly to the northeastern colonies, and these became the nurseries of the finest seamen. Some of the coarse fabrics were manufactured in the colonies. Importations were chiefly, almost entirely, from the mother country—England. Commerce began to extend her influences, and to show the growing importance of the colonies; and men of high consideration in England, after visiting America, and enjoying the hospitality of her inhabitants, on their return home, expressed their opinions that the colonies could not only bear a tax, but a heavy tax, and, therefore, should be taxed by the British parliament. In fact, North America was really, at that period, in a high state of increasing prosperity, arising from agriculture; and even the arts generally began to flourish. One of the best tests of the growing wealth and improvements of a country, is the taste displayed on private dwellings and public buildings. Architects of excellent abilities had settled in America; and some of their works are now extant in every part of the union, to prove their skill. In South Carolina, there were erected in Charleston, and on the plantations and estates of private gentlemen, houses that would have been admired any where.

I have thought proper to give this sketch of the state and improvements of the agricultural world, up to about the middle and the last quarter of the eighteenth century. Events of the greatest importance to mankind, originating with Great Britain, were now about to take place, between her and her colonies. But it is not my province to detail those great events. History has recorded them, and will hand them down to the latest posterity. On the 4th of July, 1776, the thirteen colonies declared themselves "free and independent states." The war of the revolution was waged with all the violence of civil warfare, till provisional articles of peace were signed at Paris, on the 30th November, 1782, when the independence of the "United States" was acknowledged by Great Britain, in its fullest extent. This being effected, it then became the duty of the "United States," to repair the ravages of a seven years' war, and to provide for their individual and general government. As related to their agriculture, and the arts appertaining to that pursuit, nothing could be accomplished but by assiduous industry, by perseverance, and by labours intelligently and skilfully applied. As regarded their internal government, each state being sovereign and independent, governed itself by its own constitution and its own laws. But the states, collectively, and as a great nation, required a national compact; and this was effected under the auspices of our great Washington, when the Constitution of the United States was ratified, and carried into successful operation.

During the American struggle for liberty; science, as it were, stood still. Although many of the mysteries of nature were, and had been, unfolded by men of great learning; yet few important discoveries as regarded agriculture were at that time put to practical use. It appeared as if the world had paused, to contemplate her future destinies, which would grow out of the independence of the United States. But the liberty of America being achieved, science resumed her march, and agriculture received additional and efficient aids.

The latter part of the eighteenth century, gave to Europe and America, men possessed of penetrating minds, capable of taking the most profound views of subjects, and of exploring the depths of science. Most of these men were, or became deeply skilled in philosophy, in geology and mineralogy, and carried to great extent their discoveries in chemistry. They brought very numerous substances, even what were called the elements, earth, air, fire and water, to the test of minute analysis. The discoveries made were of importance, and were now brought to the aid of agriculture; for through them the properties of manures, and the causes and phenomena of vegetation were chemically examined. The philosopher therefore as well as the farmer, engaged in the pursuits of agiculture; and numerous experiments were made, to prove the value of substances, both mineral and vegtable, used as manures.

The French revolution succeeded the American, and commenced and advanced from the year 1789. It might naturally be supposed, during the shock of that revolution, which overturned many useful establishments, and retarded the advancement of many improvements, that the progress of agriculture in France would have been materially prevented. But the fact proved otherwise, and although the commerce of the country was crippled, yet attention was paid to the arts of cultivation; and this is evinced by the appearance of numerous papers on the subject of agriculture, which were published in the transactions of different French societies. Chemistry was not only extensively applied to agriculture, but to the production of sugar from vegetable substances, not before used for that purpose. After Bonaparte passed the Berlin and Milan decrees, whereby all commerce was, for a time, destroyed, the beet root, by the aid of chemistry was made to afford sugar in considerable quantities; and this manufacture is now still carried on successfully. On the whole, although it cannot be said, that agriculture has in France, attained the perfection to which it has arrived in England, notwithstanding it is the most favourable country in Europe for that pursuit, yet in different provinces the cultivation of the ground keeps pace with its fertility, and the husbandmen of that country display a degree of industry deserving of high commendation.[*]

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* See Note E. at the end.

In Great Britain every exertion has been made, since the war of the American revolution, to render agriculture an object of public attention, and of public usefulness. Through the influence of Sir John Sinclair, requisite information was collected in Scotland, by which a statistical work was published, containing an account of the agriculture, manufactures and population of that country. In May, 1793, he made a motion in the House of Commons, recommending the institution of "a Board for the encouragement of Agriculture and Internal Improvement." The measure met with a decided support, and an address was carried to the king, requesting that such a Board should be instituted, at an expense not exceeding *l*3000 sterling. A charter was consequently granted to the Board. Sir John Sinclair was appointed its first president, and the celebrated Mr. Arthur Young was appointed its secretary; and it commenced its sittings early in 1794. Since which time, it has continued to exert a very considerable degree of activity in establishing an extensive foreign correspondence, and in publishing every kind of useful and domestic agricultural intelligence. Besides, this board caused at every session, courses of lecture on agricultural chemistry to be delivered. They were commenced, and continued for ten years prior to the publication of the Elements by Sir Humphrey Davy, who is probably the greatest chemist of his age. In the University of Edinburgh also, similar lectures were delivered by Dr. Coventry. These courses of lectures have diffused abundant knowledge of chemistry as applicable to agriculture, and are considered very valuable to enlightened and scientific cultivators of the soil. The greatest attention has been paid in England to every kind of live stock; and in fact, agriculture, or husbandry in all its branches, particularly since the commencement of the present century, and through the exertions of men of the first rank and talents, has been carried in that country to a greater perfection than it has attained in any former age. The wars which grew out of the French revolution had great influence on the agriculture, the commerce and the general prosperity of the United States. Through the wisdom of General Washington, who was, at the commencement of those wars, President, neutrality was preserved; and the same policy being adhered to during succeeding administrations, the United States were kept out of the vortex of European warfare, till the year 1812, when they declared war against Great Britain, which lasted till the end of 1814. During the interval which preceded this war, except as to the interruptions occasioned by the Berlin and Milan Decrees, the British Orders in Council, and the American embargo, which followed, all of them passed during the years 1806 and 1807, and also the consequent proceedings of the belligerents, which are always inimical to the rights of neutrals, the shipping of the United States was engaged in a commerce generally lucrative; and this gave a corresponding excitement to their agriculture for several years, during which great prices were obtained for rice, breadstuffs, and for all productions arising from the soil. But during those interruptions, American commerce was in a manner destroyed, and every agricultural production became extremely reduced in value.—However, notwithstanding all these circumstances, every state in the union has prospered, and probably the annals of no nation can shew a greater state of prosperity and improvement arising from agriculture and commerce, than the United States have experienced, since the ratification of the Federal Constitution, up to the present time. All the civil institutions of each state are founded on systems suitable to the interests and policy of such state. In each, agriculture has been successfully attended to, and the industrious cultivator has been generously rewarded for his labour. The great extent of the United States causes their productions to be various, and we may really say that under the influence and government of our own laws, we can enjoy the advantages, and reap the fruits of every climate. In each state, and in every part of the union, means of procuring information on every branch of husbandry are extensively diffused. Agricultural societies are every where established; their proceedings and discoveries are constantly communicated, either through the medium of newspapers or by journals printed under their authority, which very generally contain papers or communications from men, deeply skilled in the subjects on which they write. We all are acquainted with the "American Farmer,"[*] which may really be called a national work, containing all the agricultural information of the age in which we live, and is not surpassed by any work of the kind, at present, published in Europe. We have also in our own city a journal which will be of great importance to South Carolina; I mean the "Southern Agriculturist."[†] By this journal we have imparted to us the experience of our own agriculturists, and the mode of culture adapted to our products and our climate. Besides all these sources of knowledge, in every seminary of education, in every college throughout the union, the exact sciences form a conspicuous part of the courses of education, and are skilfully taught: also lectures on chemistry, accompanied with appropriate experiments, are regularly given by competent professors, some of whom not inferior to those employed in the best colleges of Europe. By these means, science lends every aid to agriculture, and the youth of our country, being thus instructed, are made and become practical, and well informed men capable of applying their talents, both natural and acquired, to the best advantage for their country.

I shall consider it unnecessary to go into any detail respecting the productions of South Carolina or their mode of culture. Every information on these subjects is constantly before us. But it is generally admitted that, at the present time, other sources of industry, some other agricultural productions, should be brought forward to aid our present valuable staples, rice and cotton; particularly the latter. To this end, permit me bring to your notice—the vine, the olive, indigo, madder and silk; but in doing so, I do not intend, for our time would not admit, to go into a full discussion as to the culture and management of those articles. My observations must be brief, and will principally be to inform you where the best information respecting them may be obtained.

I consider it a matter of very great importance, if a pleasant and wholesome wine could be made in every part of the state, either from the native grape, or from imported vines. The importance of such wine would not be; probably for a number of years, as an article of foreign commerce, but of domestic use and for home consumption; for ages may elapse before wines be made in America to rival those of Europe. The introduction of the use of wine into every part of the country, and into every family, would have a powerful influence on the morals of the inhabitants, and would tend to do away with the use of a large portion of the spirituous liquors now consumed. The high prices paid for foreign wines of a good and wholesome quality, cause them not to be liberally used, but by the wealthy. Could the consumption of wine become general, the people every where would abandon spiritous liquors, and give to wine a decided preference. The vine could be cultivated to advantage in every part of this state either as a fruit for the table, or for making wine.—There is scarce a part of the country where the native vines do not grow and produce grapes, and nature seems to point out the mode of cultivation, and to instruct us in the proper manner of treating the imported vines. The method pursued hitherto has been faulty, if not wrong: the bearing branches were allowed to be too near the ground. The "American Farmer" contains much valuable information on the culture of the vine: I will, therefore, request a reference to that work, and to the very interesting communications of Mr. Herbemont of Columbia to this society, and particularly to his essay on the vine, published in the "Southern Agriculturist."

NOTES.

E.

In Italy, exertions were made, in some states, to revive the agricultural spirit of the ancient Romans. In Tuscany, a private gentleman left his fortune to endow an academy of agriculture; and the king of Sardinia sent subjects to learn the practice of foreign countries, in order to establish a better method of agriculture in his dominion. A society was established in Berne in Switzerland, for the advancement of agriculture and rural economy.

The science of agriculture was publicly taught in the universities of Sweden and Denmark, and in those of Germany, and great progress was made in those countries.

Linnæus brought botany to its present improved state as a science, and he and his disciples performed much in the north of Europe; particularly in discovering new, profitable and well tasted food for cattle.

The Hollanders seemed to give the least attention to agriculture. They turned their attention chiefly to commerce. But self-preservation caused them to drain their fens and morasses: to make canals, and to drive back the ocean by the most complete and strongest embankments.

In Poland, where a natural fertility of soil seemed in some measure to dispense with the necessity of calling in improvements, many successful attempts were made to introduce the new or drill husbandry, by the government of that country; and the best instruments were procured from France, England, and other parts of Europe.

In the south; even Spain, naturally inactive as regards agricultural improvements, in spite of many bigoted prejudices, invited Linnæus, with the offer of a large pension, to superintend a college, founded for the purpose of making new inquiries into the history of nature and in the art of agriculture.

In Scotland; though that country is extremely mountainous, wherever the soil would permit, in some particular plains and in the luxuriant vallies, agriculture was not only attended to, but began to be well understood both in theory and practice.

In Ireland about the middle of the last century, husbandry began to progress:—Blythe opened the eyes of the people and removed their prejudices in favour of the former bad method of agriculture, by his incomparable writings.

In Russia too, notwithstanding the severity of the climate; by means of the incredible pains taken by Peter the Great and his successors, to introduce agriculture into their dominions, though the soil is not every where proper for corn; grain was becoming as common, as in the more southern countries; owing to the quickness of vegetation in that climate, the great fertility of some of the provinces of that vast empire, and the easy communication by rivers which the inland parts of the country have with each other; whereby the products of one province were conveyed with facility to another province, deficient in them.

F.

France is celebrated for fine fruit, and is admirably adapted to the culture of the vine, without which many parts of the country would have always been in a state of barrenness. The olive tree also has been a source of wealth to France; and has been considered as such, in every country where it has been cultivated. The animals there raised are inferior to those of England. Attention, however, is paid by the French to their cattle, which are generally of a beautiful cream colour.

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[*] See Note F. at the end.

[*] Edited by Mr. John S. Skinner, of Baltimore.

[†] Edited by Mr. John D. Legare.

(To be continued.)

STEAM ENGINES FOR DRAINING LAND.

Mr Editor, *Charleston, S. C., 6th Sept.* 1828.

As cotton has become a very unprofitable crop to many of the planters of this state, it is desirable that some other culture should be speedily introduced. Rice, upon the whole, seems most likely to succeed. The culture of this grain at present is confined to the tide swamps. But besides the tide lands, there are immense bodies of the finest quality of land called inland swamps. They were formerly very productive, but have been almost totally abandoned since the introduction of cotton. As their draining by the ordinary mode would be a work of great expense, it becomes a question whether individuals could not drain their lands by the application of steam at a moderate expense. You will therefore confer a favour on me by extending through the medium of your useful journal the following queries:

1st. What would be the cost of a steam engine of from four to eight horse power, landed in Charleston?

2d. What would be the difference in the cost of an improved engine, and one on the principle of the atmospheric engine?

The reason of this question is, because I perceive that in the history of the steam engine, Dr. Gardner observes, page 52, that the atmospheric engine is sometimes used where fuel is abundant, on account of the cheapness of its first cost.

Your obed't serv't,

A Constant Reader.

SUGAR LANDS.

Extract to the Editor--dated

Thibadeauxville, La., Aug. 9, 1828.

Sir,—The climate is less oppressive than at Philadelphia, and the nights cool; the soil is the most luxuriant I ever saw. There are plantations in the vicinity which have been cultivated for fifty years, and are as fresh as ever, producing 1½ hhds. of sugar per arpen[*]. The orange, fig, and all the tropicals grow in great luxuriance. Indeed, it is the paradise of the Union, as regards every consideration. Thibadeauxville is about thirty miles on the La Fourche from the river Mississippi. The banks of La Fourche have a small levee, but by no means so considerable as is required upon the Mississippi. The whole distance is cultivated from its mouth to about twenty miles below Thibadeauxville, and is principally owned in small farms, from 1 to 3 arpens in front, by 40 to 80 arpens deep, by Creoles. Here and there are some very extensive sugar plantations, valued from twenty to one hundred thousand dollars. Gov. Johnson resides on a very valuable one opposite this village. His crop averaged two hogsheads to the arpen last year; two measured arpens, planted by way of experiment, produced seven and a half hogsheads of sugar.

(From the Southern Agriculturist.)

ON THE POUNDING OF RICE.

Sir,—I am permitted to put upon record, in your useful work, the result of an experiment in beating rice, recently made on a plantation where animal power is alone used. The accuracy of it is proved by the weights which are annexed to each item, produced from the rough rice, in the regular process of pounding. And, when it is added, that the market rice brought the highest price then going, it will satisfy every planter, however limited his crop may be, that preparing that crop *at home,* is within his reach.

Although I here advocate the *home* preparation of rice, I have been greatly surprised at the futility of some of the arguments against exporting it to be beat in Europe. I shall trouble you with a few remarks on only one of these. It is that, which supposes our trade in rough rice will be interfered with, by the British importing from their East India possessions, what they call *Paddy.*

I believe it will be admitted that East India clean or market rice, has never *materially* interfered with our trade to Europe. The reason is evident: we are, comparatively, in the vicinity of the old countries; and the shortness of the voyage enables us to undersell in this article of trade. If the freight of *clean rice,* from the East Indies, has hitherto prevented its coming in competition with ours as *rough rice,* paying a double freight, from its having double the bulk, it will scarcely hold out any new inducement to the speculative merchant. But, when it is further recollected that rough rice is not only subject to double freight, but is then only worth one-fourth of the price of market rice, the impossibility of its interfering must strike every one.

I am, &c. A City Rustic.

The following interesting experiment was made by Mr. Rowand, Secretary to the Agricultural Society of South Carolina; showing the weights of the various products yielded from rough rice in beating, as well as the measurement of each.

	lbs.
21 bushels rough rice, weighed 48 lbs. per bushel, ...	1008
Produce when ground.	
Chaff—20 bushels, 1 peck, 6 quarts, at 9 lbs. per bushel, ...	184
Shelled Rice—14 bushels, at 58 lbs. per bushel, ...	812
	996
Deficiency in the first process, .	12
	1008
On completing the beating, it yielded as follows:	
Clean Rice, 10 bushels, 1 peck, 7 quarts, at 62 lbs. per bushel, ...	649 *lbs.*
Small Rice, 3 pecks, 3 quarts, at 62 lbs. per bushel, ...	53
Rice Flour, 2 bushels, 3 pecks, at 34 lbs. per bushel, ...	93
Small Rice Chaff, 1 peck, 4 quarts, weighing	12½
	807½
Chaff, as above stated, 20 bushels, 1 peck, 6 quarts, at 9 lbs. per bushel, . .	184
	991½
Deficiency, being a loss in the process of beating, of about 1 5-8 per cent.; the mill cut not being taken into consideration, (supposed to be equal to 1 per ct.)	16½
	1008
1940 bushels of this rice would, therefore, yield 100 barrels of 600 each; or	60,000
78 bushels of small rice, weighing	4836
254 bushels of pure rice flour, *unmixed.*	

As a specimen of the value of grazing land, there is a field of 100 acres in Oxenden, in Leicestershire, on which have been depastured and fattened, in one summer, the astonishing number of 97 bullocks and 200 sheep. [*Eng. paper.*

Wheat Produced in France.

At a recent meeting of the Academy of Sciences in Paris, the Secretary read a paper on the "present and former produce of wheat in France," from which it appears that forty years ago the amount of wheat annually grown in France was sufficient (reckoning the population at that time at 25 millions, from which five millions are to be deducted for children under ten years of age,) to give to each person 583 lbs. of wheat per annum, or one pound nine ounces of bread daily, after taking away the wheat necessary for seed for the ensuing year. The population since the period here referred to, has increased to thirty-five millions, but there has been no increase in the wheat produce; from which it is inferred that the land brought into cultivation since the Revolution, has been chiefly laid out for vineyards, leguminous plants, and potatoes.

COTTON CROP.

Mr. Skinner, *Nashville, Tenn., Sept.* 21, 1828

I regret to say, that the worm has made its appearance in our cotton crop, and attacks all the balls that are not matured, by perforating a hole and eating into the heart of it. This is the case with all forms, from the incipient blossom to nearly a full size ball, and the consequence will be a great loss to the planters in our neighbourhood. This is the first injury ever done by the worm in Tennessee, although of frequent occurrence in Louisiana.

Yours, &c. A. H.

Extract from Talbot County.

"If we could be certain of getting one dollar per bushel for all the wheat we shall make this season, and fifty cents per bushel for our corn, it would make an astonishing change in the situation of affairs in the country; add to this a steady system of internal improvement, together with an adequate and fair protection to domestic manufactures and the probable advance of this country to wealth and greatness will be too vast for human contemplation. When the capital, wealth and population, which your projected rail roads and canals will bring to Baltimore, are in successful operation, we shall feel its beneficial influence in the most remote corners of the state; yet some of my brother farmers think the influx of grain to your city will ruin the agricultural interest. I have either read or heard it stated, that when the first turnpike road was about to be laid out from London into the interior, all the gardeners who supplied the market cried out they were ruined—the facility of bringing vegetables from a distance would overstock and destroy the market. The roads were made, and the result was, that in a few years their property was doubled in value."

HORTICULTURE.

ROMAN APRICOTS—NECTARINES, &c.

Oxford, near Easton, Md., Sept. 20, 1828

Sir,—I beg leave to inform you, that amongst my little collection of fruit trees for sale, such as cherries, peaches, nectarines, plums, pears, &c. assorted, I have about 200 or more of the famous Roman apricots; many of them have borne delicious fruit, and are of fine size and great bearers; fine for confectionary shops, &c. I sell them, fit to bear, and many that have borne, at 50 cents; but I have some few very large that bore twice or thrice, I should ask a little more for. I have also about 30 or 40 trees of the fine thin shelled walnuts of the French sort; handsome; will go at 50 cents; will bear in from three to four years, and with directions how to manage them, will in common bear well. The

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[* About an acre.]

above will be fit to deliver to any who wish fine fruit, from November 1st until next April, when the earth is not too hard frozen. Also I have a parcel of valuable grape vines, rooted. Yours, &c.

J. S. Skinner, Esq. JOHN WILLIS.

Cochineal Insect introduced into Europe.

It appears that an experiment lately tried in Spain, and some parts of the Mediterranean, to introduce the cochineal insect, promises to be attended with the desired result in some of the provinces of Spain, at Gibraltar, and at Malta. The Indian fig is of a natural growth under the climate of those countries, and being the only food of the insect in question, originally suggested the idea of its importation. It has been ascertained, after the indefatigable researches of some celebrated naturalists, that the powers of fecundity of the female cochineal insect are so great as to enable it to give birth, in the very short course of its natural existence, to no less a number than 632,727. Its transportation into Europe may, in a short time become a source of important trade to those parts where circumstances of climate and food will enable it to thrive.

Hot water, applied to the roots of trees will resuscitate them if they be worm eaten; many trees in a decaying condition have been saved by scalding them in this way. Pour the water round the tree slowly, and be careful that it penetrates the roots. Hot water will also be found extremely beneficial in radish and other vegetable beds. Scald the earth before sowing the seeds, by which means you will destroy the larvæ of the insects, which are apt to be very plenty in rich soil.

The small yellow speckled bugs, which infest cucumbers and melons, may be destroyed by making light blazing fires in the garden for several evenings. The bugs will fly in the blaze and be burnt to death.

RURAL ECONOMY.

A PORTABLE ICE HOUSE.

Take an iron bound butt or puncheon, and knock out the head, cutting a very small hole in the bottom, about the size of a wine-cork. Place inside of it a wooden tub, shaped like a churn, resting it upon two pieces of wood, which are to raise it from touching the bottom. Fill the space round the inner tub with pounded charcoal; and fit to the tub a cover, with a convenient handle, having inside one or two small hooks, on which are to be hung the bottles, during the operation. Place on the lid a bag of charcoal, about two feet square; if the charcoal in this bag is pounded it will answer better; and over all, place another cover, which must cover the head of the outer cask. When the apparatus is thus prepared, let it be placed in a cold cellar, and buried in the earth above four-fifths of its height; but, though cold, the cellar must be dry; wet ground will not answer; and a sandy soil is the best. Fill the inner tub, or nearly so, with pounded ice; or, if prepared in the winter, with snow well pressed down, and the apparatus will be complete. Whenever it is wished to make ice, take off the upper cover, then the sack or bag of pounded charcoal, and suspend the vessel containing the liquid to be frozen to the hooks inside of the inner cover; then close up the whole, as before, for half an hour, when the operation will be complete, provided proper care be taken to exclude external air.

Hams after being smoked, may be preserved through the year by packing them in oats.

BUTTER.

A little vinegar, added to cream will greatly assist in bringing butter. Lemon juice, also, is said to be very good; say the juice of one lemon to the churning of eight or ten pounds of butter. Churning is sometimes difficult in consequence of the thickness of the cream. In such cases it is recommended to mix new milk (as much as there is cream,) with the cream, which will save much labour in churning.

INTERNAL IMPROVEMENT.

RIDEAU CANAL IN CANADA.

A notice of this work was promised in No. 28, but unavoidably delayed until the present number. In our number 24, August 29th, under the present head, we gave a view of the river St. Lawrence; its length, navigable facilities, and the climate of its basin. It was there stated, that from lake Ontario to the head of the tides; that a canal along its shores was probably an improvement more easily effected, than it would be to render its channel equally safe as a means of conveyance. These statements were made more with reference to the interests of the United States, than with regard to that stream in a general view. The people of Canada seem to have proceeded with their improvements, from similar motives; but from the tenor of parliamentary proceedings since the promulgation of the last tariff law of the United States, it would appear that the good legislators of the mother country feel inclined to aid the completion of the Welland, and Rideau canals, as means to contravene the revenue laws of a rival.

The Welland canal we have noticed and described; we now proceed to a review of that designated the Rideau, from the name of one of the rivers through the valley of which the latter work is carried. Nearly west from the city of Montreal, distant about 20 miles, the Ottawa river from the west falls into one of the bays of St. Lawrence. The Ottawa is itself a large and navigable stream, rising in the recesses of the Chippewa country, five or six hundred miles north-west from the island and city of Montreal; flowing north-east until within about 120 miles above its mouth, receives the Rideau, and, assuming a nearly easterly direction, communicates with the St. Lawrence as already stated.

The Rideau is a small, but an important river rising in Leeds county, township of Kitley, Lower Canada, within 30 miles of the St. Lawrence at the lower end of the Thousand islands. At its source, the Rideau is a sluggish stream, and in no part of its course much impeded by falls; its entire length, however, is not above 60 miles; course north-east nearly.

Near the head of the Rideau, and on the same table land, extends lake Gannonoqui, discharging its waters into St. Lawrence, 20 miles below Kingston, and the bottom of lake Ontario. The entire distance from the mouth of the Ottawas to that of the Gannonoqui, by the route of the intended canal, is nearly 190 miles, and by the St. Lawrence 160. The canal route, therefore, exceeds that of St. Lawrence, as 19 to 16.

With the entire facilities on one hand, or asperities on the other, which determined the choice, we do not pretend to be acquainted; but it is obvious, by mere inspection on a map, that to obtain a water line of navigation, distant from the border of the United States, must have had some share in the determination. The route of the Welland canal, was almost traced by nature, and to pass the cataract of Niagara rendered its formation indispensable.—The St. Lawrence below the Ontario, is, though impeded by shoals and rapids, yet navigable in both directions. Again, the very little change of rise and fall of the St. Lawrence, renders that stream, as far as its floods are concerned, remarkably adapted to a canal, or side cuts along its banks. We have already shewn, in a former paper, that there is only about 117 miles of the St. Lawrence, between the head of ship navigation below, to the bottom of ship navigation above the obstructions; and that much of the intermediate distance is occupied by lake St. Francis, and other parts where no natural impediment to navigation exists.

With all these natural, and apparently imperative reasons to give preference to the St. Lawrence route, over that by the Gannonoqui, Rideau and Ottawa, we might still concede that some less obvious features might have decided the preference, if we were not instructed by such reasons as the following. "*The high duties imposed by the new tariff of the United States on the staple commodities of this country, will almost exclude them from that part of the continent of America; and the opening of this extensive water communication in Canada, will give an extent of lake and river coast, bordering on the United States, equal in extent to the whole coast of the Atlantic, and completely counteract the attempt of the American government to exclude our fabrics.*"

If such barefaced avowals were the mere outpourings of a factory agent, or the unguarded ebullitions of an editor of a country town paper, they might well be passed in silence; but in reality, they are the echoes from Westminster hall, and at once disclose the source of favour with which the canals of Canada are regarded at St. James's.

A very limited reading of that immense volume, Colonial History in America, will teach any man that the mother country seldom feels much disposed to forward any improvement calculated to secure independent prosperity to the colony, be that colony English, Spanish, or Portuguese. The ultimate separation of the Canadas from Great Britain, is conceded in the British parliament to be certain, and by many not a very distant event. Is it, therefore, probable, that immense treasures would be expended by the British government to improve a country, itself confesses to hold by so frail a tenure, if some immediate advantage was not expected from the expenditure?

MAUCH CHUNK RAIL-WAY.

One of the Editors of the Savannah Georgian, who has been on a tour to the North, thus describes the Rail-way leading from the Coal Mines to the Lehigh river:

"The Coal Mines at Mauch Chunk, and the country for miles around, all mountainous, belong to the Lehigh Coal and Navigation Company, who have expended immense sums upon the works connected with them. From the Lehigh river to the summit of the coal mountain, is near nine miles, over which space a Rail-road has been laid, for the transportation of coal. The mountain is oblong, its extreme height being about one thousand feet, and the rise of the road, on an average, one foot in seventy. A road is first cut along the side of the mountain, on which billets of wood are laid transversely, (like our swamp causeways) and on them, parallel with the road, the rails of pine, six by four inches thick, are placed. On the upper surface and inner edge of these rails narrow bars or plates of iron are screwed, for the wheels to run on. The cost $1500 per mile. The cars for carrying the coal are made of sheet iron, with strong wheels, about two feet in diameter, and carry a ton each. They weigh, when empty, near 1500 lbs. and three of them are drawn up with ease by one mule; but, in descending, from ten to fourteen, fully loaded, are linked together, passing over the road with great rapidity by their own gravity, with a noise that may be heard for miles. The speed is regulated by a lever to each car, which stands up between the wheels of one side, and, by using it, a pressure is applied to them, which lessens or prevents their revolution at pleasure. One man guides the whole line with a rope tied to the ends of the levers of the first six cars, he sitting on the seventh. Immediately after the coal cars, the mules to drag them up after being emptied, are sent down in cars, three in each, and it is ludicrous to see the poor animals riding by at the rate of fifteen miles an hour, unconcernedly munching their corn, and quite indifferent to their novel situation."

CHESAPEAKE AND OHIO CANAL.

Recent intelligence from the contractors on the line of the canal, assures us that they are without exception in good health, and that very few, if any, of their hired laborers are even slightly indisposed. All the sections that have been let, except two or three, are under way. To this agreeable news, we are, now, enabled to add, that the formalities required to be observed, preparatory to the subscription of the state of Maryland, having been strictly complied with, the treasurer of her western shore, last week, subscribed half a million of dollars to the stock of the canal, the amount of which now exceeds three millions six hundred thousand dollars. [*Nat. Int.*

NEW YORK CANAL.

Albany, Sept. 30.

Arrived at Albany, on Saturday, canal boat "Mary," of Milan, Captain Edward Meeker, from Huron county, *State of Ohio*, with a cargo of pot ashes, staves, and sundries. This boat was built in Huron, at the head of lake Erie. She crossed the lake, 250 miles, to Buffalo, and thence, by way of the Erie canal, 362 miles, to Albany; total distance, 612 miles. She is forty-nine tons burthen, and is *schooner rigged*, carrying two masts, and is bound for New York.

Same day, arrived at Albany, 36 boats, and cleared 42 boats. The Northern Canal is navigable to Whitehall.

The principal difficulties in the erection of the lower lock of the Pennsylvania Canal, on the west side of the Allegany river, have at length been surmounted, with stupendous exertions. In three weeks, these magnificent locks will probably be quite completed.

SPORTING OLIO.

PEDIGREES—INQUIRY.

Mr. Skinner, *Diamond Grove, July 20th*, 1828.

Sir,—You will greatly oblige me, indeed, by endeavouring to find out the pedigrees of the following horses.

No. 1. Koulikhan, laid down in my last, a bay, sold by the late Col. John Baylor to Mr. Torstal. What was his importer's name, if imported? He, as aforesaid, was an excellent stallion.

No. 2. Koulikhan, a chestnut, got by Batts and Maclin's Fearnought.

I wish to know whether No. 1 was an imported horse or not. In looking over the General Stud Book of England, I found a horse by the name of Koulikhan, foaled in 1730; consequently neither he, nor another horse of the same name, foaled in 1772, could be the sire of Quaker Lass, (laid down on the list sent you,) the one being too old and the other being too young. • I apprehend the old Koulikhan that was in this country, was an imported horse, probably a son of the horse by that name foaled in 1730. Koulikhan, got by Batts and Maclin's Fearnought could not have been foaled sooner than 1781 or 1782, because Batts and Maclin's Fearnought was foaled about the year 1777, the very last of the old horse's get. There is a gentleman who lives in Maryland, and I understand is very conversant in pedigrees. I think he furnished a great deal of matter for your paper under the signature of F.; possibly he can give you the necessary information respecting No. 1; also about the pedigrees of Dabster, and Col. Byrd's imported mare Calista; she was the dam of Mercury. Should the above request fail on application to F. it is more than probable it may be obtained by examining a very old file of papers previous to the year 1760, either in Annapolis or in Baltimore. I would take it as a very particular favour indeed, if not too inconvenient to you, to endeavour to procure the above information, and reply to me to Williamsborough, N. C.

Also the pedigree of the imported horse Silver-Eye. I believe he was imported by the late Holcot Pude, Esq., of Roanoke river, in Northampton county, N. C., and afterwards owned by Mr. Du Val. N.

[We would cheerfully oblige our correspondent by writing the number of letters and dedicating as many hours and days as would be necessary for a course of personal investigation into all these matters; but really we have seldom time to say "Jack Robinson"—so we are forced to give his inquiries the usual course, by inserting them in the Farmer, whereby they will go to the whole agricultural publick, as well as to particular individuals. F., to whom he refers, does this paper the honour to read it regularly, and to have each volume bound in *Russian leather*, to match with precision. He is a gentleman of much taste and some leisure, and a great deal of politeness—we mean politeness of the true sort, such as distinguished the old school of gentlemen, who took special care to command the respect which they never failed to pay where respect was due. But those times have gone with years beyond the flood, and nearly all the race of men that belonged to them. Estates are *being cut up* like patch work quilts; manors are subdivided into lots; old Madeira wine and punch, quaffed from bowls of transparent china, have been superseded by still-burnt whiskey at 12 cents a gallon; a race of accomplished cavaliers has been succeeded by cross-roads politicians of small calibre, who are ready to die for, but more ready to drink with the sovereign people. But then we must take comfort in the thought that we are to have a nation of hardy day-labouring yeomanry and robust manufacturers, with understanding to appreciate and independence and nerve to defend their liberties! To return, if we can find the road back. F. will answer N.'s inquiries, if he possesses the facts.]

PEDESTRIANISM.

Upwards of one thousand persons assembled at Lord's Cricket Ground, St. John's Wood, on Monday afternoon, to witness J. Sheppard, the Yorkshire pedestrian, run ten miles, several sporting gentlemen having backed him to perform the distance *within* the hour, for a wager of 200*l.* About four o'clock the pedestrian walked round the ground he was to run, which measured a third of a mile; but just as he was about to start, a most tremendously heavy fall of rain came down, which, for a time, put a stop to the proceedings. At half past five, however, it being peremptory that the race should take place, play or pay being previously agreed on, Sheppard, accompanied by his backers, walked up to the starting place, and having divested himself of every article of dress, with the exception of a pair of drawers, commenced his arduous undertaking—the rain falling smartly on him, the grass marshy, and in many places slippery. The betting, notwithstanding, was in his favour. He performed the first round, viz. a third of a mile, in one minute and forty-five seconds, and continued to do each round, up to the seventh mile, under two minutes, in a most superior manner, amidst the most enthusiastic cheers of the crowded assemblage. He afterwards fell off his surprising speed, and at the conclusion of the thirtieth round, scarcely more than one minute had expired over the time, consequently he lost the match. Had the pedestrian not run bare-footed, owing to the state of the ground, he could not have proceeded round near so fast. A considerable deal of money was lost on the match, so confident were his friends that he would accomplish his task. Sheppard is undoubtedly a most superior runner.

Lond. paper.

Singular Race.—On Tuesday last, Eli Mitchel and Joshua Brook, of Elland, colliers, for a wager of two sovereigns, ran a mile on the Halifax turnpike road upon their hands and feet. Mitchell performed this extraordinary feat of quadrupedism in ten minutes and fifteen seconds, having distanced his competitor.—*Ib.*

MISCELLANEOUS.

REFINING OF SUGAR.

Sugar is generally imported into this country in the raw state, called *muscavado* sugar, and the refiner chooses that which has a bright hard grain, and is not guided by the colour. If he finds it sandy and hard, he prefers it to the soft and finer sugar, and the East India sugar is, on that account, unfit for refining; that brought from the West Indies being the best. The mode of refining sugar is briefly this, and if we consider sugar as a crystallized and uncrystallized compound, we have its two extremes of purity and impurity; we have it crystallized in sugar candy, and uncrystallized in molasses, and these two exist combined in the common raw sugars, and the process of refining is to separate them. This process is generally commenced by filling large boilers with a mixture of lime-water and sugar, with certain quantities of bullock's blood; this was the old mode of proceeding, but lately a patent has been taken out for an improvement upon it. The object of the process is two-fold; the blood, coagulating by heat, forms a scum upon the surface, and carries away a great quantity of impurity from the sugar of various kinds, which are then skimmed off: the use of the lime water is to render the treacle very soluble, so that it may not afterwards interfere with the separation of the crystallized sugar. This mixture is boiled until, by taking up a drop of it between the finger and thumb, it can be drawn into threads, and it is then taken out into vessels, where it is stirred about with wooden instruments until it becomes, like the original raw sugar, in a granulated state. This sugar is afterwards put into conical moulds, made partly of clay, and water is poured upon their bases, and as the water trickles through the sugar it carries with it the uncrystallized part, and the cones become gradually whiter and whiter as the treacle trickles through. As the bases are more white than the apices of the cones, they are generally cut off; and when it is an object to obtain very fine sugar, the loaves, as they are called, are made of a smaller size. [*Brande's Lectures.*

Vegetables may be preserved from injury by frost, by sprinkling cold water upon them early in the morning after a freezing night.

Recovery of Drowned Persons.

M. L. D'Etoile states, in a letter to the French Academy of Medicine, that he has succeeded invariably in recovering drowned animals, by the following galvanic application. A short and fine needle is inserted into the sides of the body, between the eighth and ninth ribs, so as to come in contact with the attachment of the diaphragm, and then a current of electricity, from twenty-five or thirty pairs of inch plates is passed through them. The diaphragm then immediately contracts, and an inspiration is effected. On breaking the communication and again completing it, a second inspiration is occasioned, and by continuing these means, a regular respiration is ultimately effected.

THE FARMER.

Baltimore, Friday, October 10, 1828.

Maryland Agricultural Society.

The Trustees of the Maryland Agricultural Society will meet at the residence of H. V. Somerville, Esq. on To-morrow. As this is the last meeting that will take place previous to the Cattle Show, it is obviously important that it be a full one.

Cattle for Sale at the Next Show.

Mr. Skinner: *Brookland Wood, 6th Oct. 1828.*

You will oblige me by making known through the "American Farmer," that at the cattle show, on the 16th instant, I will offer for sale the following animals, viz:

A Devon Bull of great symmetry, aged 8 years; he is sold from no defect, or objection; he is very pure, and very gentle. His price is sixty dollars.

A Devon and Alderney Bull, three years old. His price is forty dollars.

Eight Bakewell Rams; from the blood of Mr. Barney of Delaware. The parent ram cost one hundred dollars. The price of those offered is five dollars each.

I have several Devon cattle, from calves to three years old, for sale. They will not be on the ground; but their blood is unmixed, and are very fine cattle. The price is forty to sixty dollars a-piece.

R. CATON.

A Jack for Sale.

The most valuable Jack, probably, in the State of Maryland, will be offered for sale at the next Maryland Cattle Show. He will be seven years old in May next, is remarkably well formed, has fine spirit, and his action equal to that of a blooded horse. J. S.

Sheep for Sale.

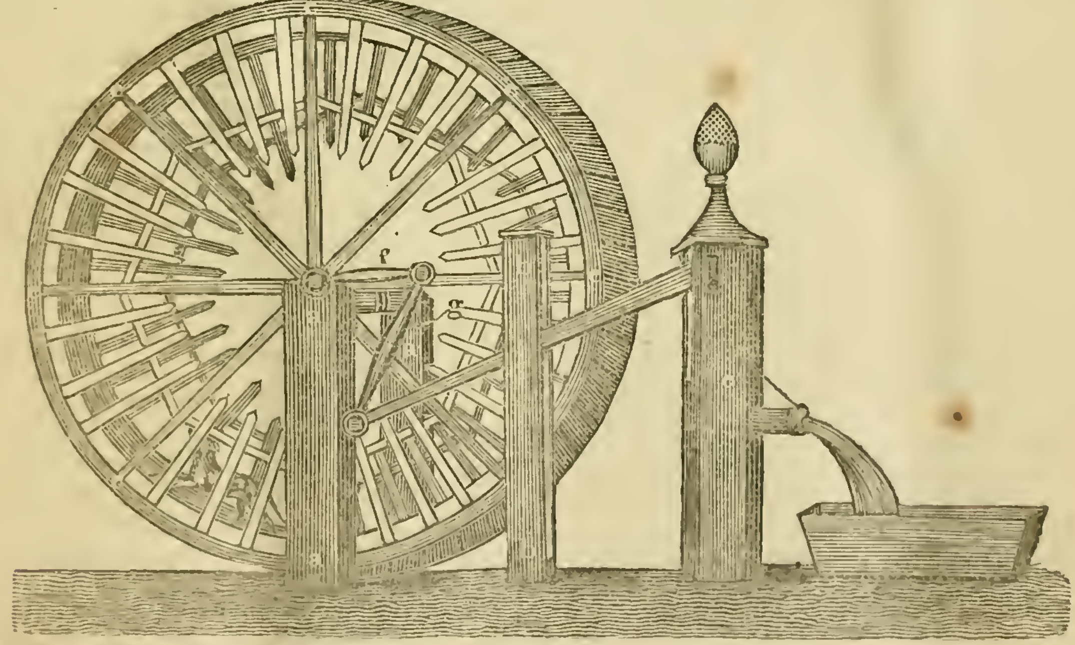
Will be exhibited at the Baltimore Cattle Show, for sale—

One imported Southdown Ram.
One half blood Saxony Ditto.
Six full blood Dishley Rams, bred from premium sheep raised by Mr. Jno. Barney of Delaware.

[We have notice that there will be some Short Horn Bulls, nearly full blood and very fine; and some more Bakewell Sheep for sale; with no doubt many other valuable animals.]

☞The New York Statesman of the 4th inst. notices a very important invention for spinning flax and hemp, by Doctor Bolt and Mr. Dyer, of New England. It is said to be constructed on an entirely new principle, and to produce about the same quantity as the throstle spindles in the cotton manufacture. The whole formation of the thread from dressed flax is completed at one operation.—The material laid on the machine, is wound upon the spools ready for the loom, without the intervention of any assistance; the whole being effected by the rotatory motion communicated from *drums*. Indeed, all the motions of the instrument are of a circular kind.

The intelligent Editors of the Statesman add the further remarks, "That so far as our observation or knowledge extends, this invention is entirely original, and nothing of the kind exists in the workshops of the United States or Europe, where fabrics from flax are entirely wrought by hand. The manufactures of linens will now be placed upon the same ground and enjoy the same facilities as cottons. It has been estimated, that upon moderate calculations *two millions of dollars* may be saved annually to this country, by the reduced expenses of linen fabrics, effected by this invention. If it be not introduced abroad, and foreign prices thus diminished, the products of our own looms will supply our markets and prevent importations from maintaining competition. Such is our impression of the importance of this machine. Those who are incredulous on the subject, may have their doubts removed by an examination of specimens of the thread at this office, or by inspecting the machine at the corner of Pine and Water streets."



☞With a view to afford the information, required by many distant correspondents, in relation to the working of the pump at the dairy farm of Mr. R. Smith, by a pointer dog, as stated in the American Farmer, No. 15, vol. 10, we have this day published the annexed sketch of the apparatus. Its mechanism is so simple, that any carpenter, with the aid of a blacksmith, may make it. The crank, attached to the axis of the wheel, is connected with it by a fixed joint. The intermediate link or rod has swivel, or moving joints at both of its ends.—The handle of the pump is of wood, and is steadied and guided in its motion by an upright post through which it is passed, and plays in a long vertical mortice. The diameter of this wheel is 12 feet; the length of the axis is 4 feet; the crank next the wheel with the fixed joint is 2½ feet; the connecting link or rod is 3½ feet; and the handle of the pump is 7 feet.

If any further explanation should be necessary, it may be obtained by an application in person at the farm, or by a letter, post paid, addressed to Mr. Noah Underwood, at Orange farm, near Baltimore, who has obtained a patent for this machine. His charge, for the use of it, is only the small sum of five dollars, which may, by mail or otherwise, be sent to him.

On the other side of this wheel, and to the end of its axis, is attached a drum, by means of which the dog also works one of Eastman's cylindrical straw cutters; which thus cuts, with a vast saving of labour, not only all the straw, but all the hay used in the feeding of about 100 head of cattle.

The dog, when at this work, requires not, like a horse, the attention and time of a man. It is only necessary to hand him occasionally a cup of water, which any child can do.

White Post, Frederick county, Va.
Mr. Skinner, *August 8th*, 1828.

Sir,—You will be pleased to consider us subscribers to the proposed agricultural work of Mr. J. M. Garnett, and we sincerely wish him every success in the undertaking. Such enterprises are so rare amongst us, they should have the most prompt support; their value has been but feebly appreciated. We trust the time is fast coming when they will have their full share of credit and patronage. From the suggestions and qualifications of Mr. Garnett, we may anticipate something more than ordinary in agricultural publications. The comparative view of cultivation in the most agricultural part of our states from actual observation, added to judicious selections, combined with judgment, and embellished with a good understanding, will form an interesting volume—especially as it proposes to comprehend a view of manufactures in connection with agriculture.

Richard K. Meade,
T. F. Nelson,
Wm. B. Randolph,
Wm. M. Barton.

N. B.—Throughout this extensive valley, there can be but little doubt, that such a work as is proposed in the prospectus of Mr. Garnett, would meet with a handsome support. R. K. M.

☞ The sale of American Woollen Goods, on the 3d instant, of the well known manufacture of Mr. James Sykes, near this city, was well attended, and we learn that the goods generally went off briskly at fair prices. There were sold 400 pieces of Cloths and Cassimers, and 450 pieces of Sattinets. The prices of the Cloths ranged from $2 50 to $5 77; of the Cassimeres, from $1 45 to $1 95; and of the Sattinetts from 70 cents to $3 45 per yard.

Maryland Elections.

For Delegates to the General Assembly.

		Adams.	*Jackson.*
Baltimore City		0	2
Annapolis	"	1	1
Baltimore County		0	4
Anne Arundel	"	4	0
Frederick	"	4	0
Harford	"	0	4
Prince Georges	"	3	1
Cecil*	"		3
Kent*	"	3	
Charles	"	4	0
Montgomery	"	4	0
Washington	"	0	4
Dorchester	"	3	1
Talbot	"	4	0
Calvert	"	4	0
Caroline	"	4	0
Queen Ann's	"	1	3
Somerset	"	4	0
Worcester	"	0	4
St. Mary's	"	4	0
Allegbany not heard from.			
		47	27

* Kent and Cecil counties have each but three delegates, the seat of the fourth delegate in both being vacant in consequence of a tie in each. [*Amer.*

Latest from Europe.

By the packet ship France, Capt. Funk, which arrived at New York from Havre, having left there on the 5th of September, Paris papers to the 3d and Havre to the 4th were received.

It appears certain that the late report of the Russians having suffered a repulse, with a severe loss, before Choumla, is entirely unfounded. The latest accounts from Constantinople, as well as from the scenes of action, represent the prospects of the Russians as flattering. The Emperor was at Odessa, and much was said of an armistice of three weeks, from which some newspapers supposed negotiations might arise, and intimate that the Russians were disposed to treat. Under an Odessa date of August 13th, it is, however, asserted that the Emperor was expecting a reinforcement of 85,000 men at Choumla on the 22d, and would then return to head quarters, and make the decisive attack.—From another quarter it is stated, that the Turks would soon begin to disband for want of provisions; and that the place would be carried by storm.—There are about 40 or 50,000 men in the garrison, and Hussein's 1000 regulars—the heights which formerly commanded the place being not included in the defences.

An affair had occurred near Varna, in which a Turkish post was driven in, and a communication opened with the fleet.

The Prince of Hesse Homburg arrived at the camp before Choumla, just before the departure of the Emperor.

Our dates from Choumla are to the 8th August, in bulletins. Their contents we abridge as follows: On the 1st, the Emperor arranged the siege of the place, and it was announced he would review Admiral Greigh's fleet off Varna, and inspect the works on land, and afterwards embark for Odessa, returning thence to the head quarters of the guards at Bazardjik. On the 31st of July, the Turks from Choumla attacked General Rudiger, to prevent his cutting off their communication with the capital and interior, but they failed, and he took post on the road at Eski Stamboul.

The bulletin of the 7th says, that although the entrenchments are within reach of the Turkish cannon in Choumla, no sortie is made, from which it is inferred that they have not as much spirit as in former times.

The garrison of Varna has made several strong but unsuccessful sallies; and Gen. Suchtelen has established his position, and is joined by Lieut. Gen. Anchacoff. The bulletin of the 8th, says Prince Menzikoff, on the 2d, drove the Turks from the heights on the north west, and occupied them. Then he opened a communication with Ad. Greigh's fleet of 8 line ships, 5 frigates, 5 bomb vessels, &c. On the 5th, the Emperor arrived, with a reinforcement and 15 cannon.

Accounts from Odessa of the 9th, say he reached there the day before. Letters of the 11th mention that he was still there, with the Grand Duke Michael. The surrender of Choumla, Varna, and Silistria, was hourly expected. There were no hopes of peace.

Constant, Aug. 6th.—The garrison of Silistria made a sortie on the 21st July, and according to Turkish accounts, killed 2000 men. Troops will have to be sent to Bosnia to quiet disturbances. The last news from Shumla represented it as closely blockaded, and Hussein Pacha in a critical situation; the Russians got the better.

Letters from Vienna say, that the foreign diplomatic personages received an invitation on the 2d August, to meet at Odessa.

Letters from Constantinople to the 8th, speak of the departure of the Grand Vizier, as very near.—The practice party wished to secure the mediation of the English; and the Lord Heytesbury, as if expecting to go to Constantinople, had obtained a large credit on a banker at Pera.

The Constitutionnel says, that the emperor went to Odessa, to remove thither some of the ambassadors, diplomatists, &c. to prevent the publicity of his movements.

Greece.—A letter from Corfu of the 4th August states, that Ibrahim has received supplies from Alexandria and Zante, and refuses to evacuate the Morea. The Albanians who deserted him, it is stated, have got one of the forts of Lepanto. The press and types have been sent from France to print the Courier d'Orient, which will be edited by Col. Rayband. Under date of July 23, it is stated, that the French and English admirals had gone to Navarino, having heard of the arrival of stores from Egypt:—also, that 8000 Albanians had taken Arta and Prevesa, and demanded a large sum of Ibrahim, threatening to sell those fortresses to the Greeks. Ibrahim had desolated some of the interior districts.

From Spain we again hear of the existence of great discontent among the soldiery, on account of their being so much in arrear of pay: at Ceuta this is not only the case as to pay, but even as to rations, and the garrison has hardly bread to eat.

Portugal.—Advices from Lisbon to the 16th August, state that the persecutions by the dominant faction continued with unabated fury.

Sales at Havre, September 3.—108 bales Louisiana Cotton, 20¼ sous; 88 do. Mobile, 18 2-5.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. The Inspections for the week was 395 hhds. Maryland, 13 hhds. Ohio, 5 hhds. Virginia, 2 hhds. Pennsylvania.

Flour—white wheat family, $7.00 *a* 7.75—superfine Howard-st. 5.75 *a* 6.00; city mills, 5.50 *a* 5.75; Susquehanna, 5.50—Corn Meal, per bbl. 2.50—Grain, best red wheat, 1.10 *a* 1.15—best white wheat, 1.20 *a* 1.30—ord'y to good, 1.00 *a* 1.10—Corn .38 *a* .40—Rye .40 *a* .43—Oats, bush. .22 *a* .24—Beans, 1.00—Peas, .50 *a* .60—Clover seed, 4.50 *a* 5.00—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 22½ *a* .23—bbls .25—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

Marketing—Apples, per bush. .50 *a* .75; Pears, per peck, .25 *a* .37; Butter, per lb. .25 *a* 31¼; Eggs, dozen, .10; Potatoes, Irish, bush. .50; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, lb. .8 *a* .10; green Corn, dozen, .25; Tomatoes, peck, .25; Onions, bush. .50; Cucumbers, pickling, per hundred, .25; Beets, bunch, .6¼; Turnips, bushel, 1.00; Partridges, .8 each; prime Beef on the hoof, 5.50 *a* 6.00.

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AGRICULTURE.

(From Loudon's Encyc. of Agric.)

CRITERIA OF THE QUALITIES OF HORSES,

For various purposes.

(Continued from p. 233.)

The criteria of road horses for quick draft, or coach, stage and post chaises, &c., are derived from the immediate purposes for which they are intended; as requiring either strength or speed in greater proportions. To make them safe, the forehand should rise, the back should be straight, the step should be short but quick, which fatigues least.—As they approach the hunter in form, they are best fitted for quick work; and as they resemble the best kind of light agricultural horses, they are calculated for heavy draft, as coaches, &c. But in all, a portion of blood gives courage, durability and condenses strength into lessened bulk; by which activity is gained. It is of great consequence to a coach horse that the neck and head be so formed as to be enabled to rein-in well to the bridle.

The criteria of a dray-horse are, that he be very broad breasted and muscular, and thick in the shoulders, which should not lie backward. Nor should the fore-hand be up, as recommended in the road-horse; for, by holding up their heads, such horses may be choked by the collar, as they would, if so formed, draw too much by the throat, and their wind being thus stopped, would be in danger of falling down. The neck of a dray-horse is not the better for being long, and the head should be proportionate to it. Like all horses, he should be chosen with short legs and good strong hoofs. He ought to be thick in his thighs and large in bone; but above all, he ought to be a steady collared horse, with courage to make him true to a severe pull, and yet without a hot fiery spirit to make him fretful.

The criteria of a wagon horse are, in some respects, different from those of the dray-horse. He should be more weighty, and altogether larger. Rapidity of motion is greatly subordinate, in the heavy stage wagons usually seen on our roads, to strength. It is all collar work; nothing is gained from the momentum of the dragged mass, which, the instant the pull ceases, stands still. The wagon horse should be patient in the extreme; willing to lie to his collar up hill, and yet settle into his own share of work on level ground. As his exertions are constant, it is of the greatest consequence that he should be a good feeder.

The criteria of a horse peculiarly adapted to the labours of agriculture, are thus given by Culley:—His head should be as small as the proportion of the animal will admit; his nostrils expanded, and muzzle fine; his eyes cheerful and prominent; his ears small, upright, and placed near together; his neck, rising out from between his shoulders with an easy tapering curve, must join gracefully to the head; his shoulders, being well thrown back, must also go into his neck (at what is called the points,) unperceived, which perhaps facilitates the going much more than the narrow shoulder; the arm, or fore-thigh, should be muscular, and tapering from the shoulder, to meet a fine, straight, sinewy, and bony leg; the hoof circular, and wide at the heel; his chest deep, and full at the girth; his loins or fillets broad and straight, and body round; his hips or hooks by no means wide, but quarters long, and the tail set on so as to be nearly in the same right line as his back; his thighs strong and muscular; his legs clean and fine-boned; the leg-bones not round, but what is called *lathy* or flat.

The chief points in a farming cart-horse, in the opinion of the author of the New Farmer's Calendar, are, "neck not long, nor too thick; short legs, rather flat than round and gummy; fore feet even, not too distant; wide chest; strong, but not high shoulders; considerable length of waist, supported by a wide loin; quarters full, and rather raised; strong muscular thigh; size fifteen hands one inch, to sixteen hands high. Being somewhat forelow, gives them an advantage in draft; and a moderate length of waist insures speed in the walk."

The horse used in husbandry, according to the writer of the *Experienced Farmer*, ought to be larger, but in other respects like the road horse; and, instead of walking two or three miles an hour, be able to walk four or five. In that case he would be able to plough more land in a given time, and work in the cart or wagon with more despatch, when wanted. In harvest time, a nimble and strong horse is valuable. In drawing manure into the field, or corn to the market, the farmer will also find his account in strength and activity; for, as the draft in all these cases is light one way, such horses would do their business with speed. The small farmer need not with this kind of horse keep an idle one; he might carry his master to market, and plough the remainder of the week.

In a horse for the plough, according to Brown, both strength and agility are required; a dash of blood, therefore, is not disadvantageous. It is not size that confers strength, the largest horses being often soonest worn out. A quick even step, an easy movement, and a good temper, are qualities of the greatest importance to a working horse; and the possession of them is of more avail than big bones, long legs, and a lumpy carcass. To feed well is also a property of great value; and this property, as all judges know, depends much upon the shape of the barrel, deepness of chest, strength of back, and size of the hips or hooks with which the animal is furnished. If straight in the back, and not overshort, high in the ribs, and with hooks close and round, the animal is generally hardy; capable of undergoing a great deal of fatigue, without lessening his appetite, or impairing his working powers; whereas horses that are sharp pointed, flat ribbed, hollow backed, and wide set in the hooks, are usually bad feeders, and soon done up when put to hard work.

The Criteria of a horse's age are derived from the appearance of the teeth. According to La Fosse the younger, there are these appearances. The horse is foaled with six molar or grinding teeth in each jaw; (*fig.* 1 *a*,) the tenth or twelfth day after, the two front nippers (*a*,) appear above and below, and in fourteen or fifteen days from this, the two intermediate (*b b*,) are pushed out; the corner ones (*c c*,) are not cut till three months after. At ten months the incisive or nippers are on a level with each other, the front less than the middle, and these again less than the corners; they at this time have a very sensible cavity, (*d*.) At twelve months this cavity becomes smaller, and the animal appears with four molar teeth on each side, above and below, three of the temporaneous or colts', and one permanent or horse tooth: at eighteen the cavity in the nippers is filled up, and there are five grinders, two of the horse, and three temporaneous: at two years, (*fig.* 2,) the first of the colt's molar teeth in each jaw, above and below, are displaced: at two years and a half, or three years, the front nippers fall and give place to the permanent ones: at three and a half the middle nippers are likewise removed, at which period the second milk molar falls: at four years, the horse is found with six molar teeth, five of his new set, and one of his last: at four years and a half, the corner nippers of the colt fall and give place to the permanent set, (*fig.* 1 *e*.) and the last temporaneous grinder disappears: at five years old the tushes in the horse usually appear: at five and a half they are completely out, and the interval wall of the upper nippers, which before was incompletely formed, is now on a level with the rest; at this period the incisive or nippers have all of them a cavity formed in the substance between the inner and outer walls, (*fig.* 1 *f*.) and it is the disappearance of this that marks the age: at six years those in the front nippers below are filled up, (*fig.* 2 *e*,) the tushes are likewise slightly blunted: at seven years the mark or cavity in the middle nippers is filled up, and the tushes a little more worn, (*fig.* 2 *f*.): at eight years old the corner nippers are likewise plain, and the tushes are round and shortened. (*fig.* 2 *g*.) In mares, the incisive or nippers alone present a criterion (*fig.* 2 *a*); at this period the horse is said to be aged, and to have lost his mark; but among good judges the teeth still exhibit sufficient indications. At nine, the groove in the tushes is worn away nearly, and the nippers become rather rounded: at ten these appearances are still stronger: at twelve the tushes only exhibit a rounded stump, the nippers push forward, become yellow, and as the age advances, appear triangular and usually uneven.

Fig. 1.

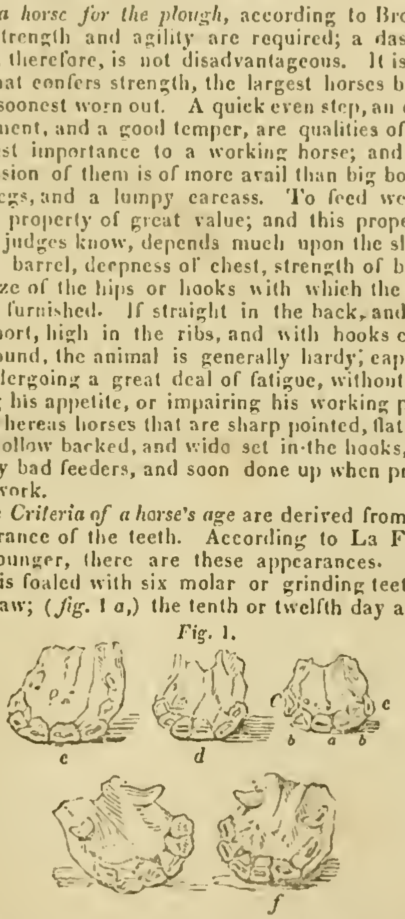
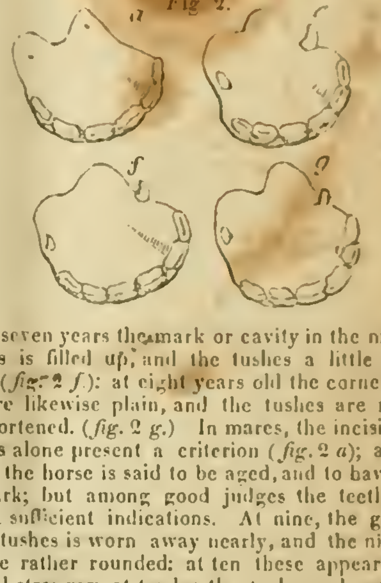


Fig 2.



M. St. Bel, the late professor of the English Veterinary College, used to assert, that after eight years, the cavities in the anterior or upper incisive teeth, are filled up with equal regularity; thus from eight to ten the front ones were filled up, from ten to twelve the two middle, and from twelve to fourteen those of the corner; but though some pains have been taken to ascertain this, it does not appear that the disappearance of the cavities in these teeth is attended with sufficient regularity to warrant complete confidence.

To make a colt appear older than he really is, both breeders and dealers very commonly draw the nippers, particularly the corner ones; by which means the permanent set which are underneath immediately appear, and the animal is thus fitted for sale before he otherwise would be.

To make a horse look younger than he really is, dealers perform an operation on the teeth called bishopping; (from the name of a noted operator,) which consists in making an artificial cavity in the nippers, after the natural one has been worn out by age, by means of a hard sharp tool; which cavity is then burned black by a heated instrument. But no art can restore the tushes to their form and height, as well as their internal grooves. It is, therefore, common to see the best judges thrust their finger into a horse's mouth, contenting themselves with merely feeling the tush. To less experienced judges, other appearances present themselves as aids. Horses, when aged, usually become hollow above the eyes, the hoofs appear rugged, the under lip falls, and if grey, they become white. In this country, where horses are so early worked before the frame is consolidated, and where afterwards they continue to be exerted unceasingly on hard roads, it is not uncommon to find a horse at six years old, feeble, debilitated, and exhibiting all the marks of old age, except in his mouth; on the contrary, when the animal falls into other hands, at ten or twelve he has all the vigor of youth, and his teeth are the only parts that present an indication of age: it is, therefore, more useful to examine the general appearance of the animal, than to be guided altogether by the marks in the teeth; a too strict adherence to which, Blaine observes, leads into great error on the subject of the age of horses. The commonly received marks, he says, grant not a criterion of a third of the natural life of the animal, nor of one half of the time in which he is perfectly useful. Many good judges will not purchase a horse for hunting earlier than eight years old, and regard him only in his prime at twelve.—A gentleman at Dulwich has a monument to the memory of each of three several horses, which died in his possession at the age of thirty-five, thirty-seven and thirty-nine years; the latter of which was suddenly taken off by a fit of colic, having been in harness but a few hours before. Culley mentions a horse of forty-five; and an instance lately occurred of one that lived to fifty. Blaine, in continuation, draws the following comparison between the relative situations of the state of the constitution, between the horse and man, under the ordinary circumstances of care towards each. The first five years of the horse, may be considered as equivalent to the first twenty of a man; a horse of ten as a man of forty; of fifteen as a man of fifty; of twenty as a man of sixty; of twenty-five as a man of seventy; of thirty as a man of eighty; and of thirty-five as a man of ninety.—(*Vet. Outlines, p. 35.*)

AN ADDRESS,

Delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, on Tuesday, the 19th August, 1828; *by* Elias Horry.

(*Concluded from page 236.*)

The Olive has always been considered a source of wealth, in a manner a blessing, to the country where it grows, and is cultivated. The tree once planted remains for ages, or till killed by frosts, and then it puts out and grows from the roots. It takes about twenty years to come to full maturity; when its fruit will give from fifteen to twenty pounds of oil, which may be used with vegetable food, and even as a luxury; it is also used as medicine, and can be burnt in lamps. The olive is produced and cultivated in the temperate climates of Asia, in Greece, in Italy, in Spain and in Provence and Languedoc in France. It will thrive in South Carolina and Georgia; also in Florida, where trees from France have been planted. This tree is ornamental, and should supersede many now planted.—Wherever it has been cultivated in this state it has flourished. Olives taken from trees in this city have been pickled and found nearly to equal those imported, but as yet no oil has been pressed. On this subject I must request you to refer to Mr. Jefferson's letter to this society, written in 1787, when he was American minister to the Court of France; to Mr. Couper's letter to the editor of the "Southern Agriculturist," and to the title "Olea" in Rees' Encyclopædia.

Indigo was a staple of South Carolina prior to the revolution, and continued so till the introduction of cotton. It was once a great source of wealth, and the planters of it brought the manufacturing of the indigo of commerce to great perfection, for that period of chemical science. It was given up as a staple, because the East India Company considered it their interest to introduce into the English factories the indigo of Bengal; the French, naturally, used, prior to their revolotion, the indigo of St. Domingo, and the United States at that time, had no factories requiring a large demand for the article. The consumption of indigo in the United States is now very considerable, so much so as to warrant an extensive cultivation of it, and there is no doubt but that South Carolina can produce a large portion of the quantity demanded, should the planters think it their interest to turn their attention to the article. I would not, however, recommend the manufacturing in this state, of the indigo of commerce, from the plant, on account of the process being extremely unhealthful; but that the leaves may be cured, packed into bales and thus exported. On this subject, I beg leave to refer you to a very intelligent communication from Mr. George M. Gibbs to Mr. Washington, published in the "Southern Agriculturist."

Madder is a dye-stuff of very considerable value, and the consumption and demand for it must increase. There is no doubt but that this article can be cultivated in the United States, with the same facility with which it is cultivated in Europe. The dyers cannot do without madder; it gives the Adrianople red, and is used in setting many other colours. I have always understood that it was cultivated in this state, prior to the revolution, by the late Mr. Aaron Loocock, at his plantation near Goose Creek, and that he wrote a pamphlet on its culture. The best kind of madder is procured from Smyrna, though that used by us, and in Europe, is generally grown in Holland. It succeeds best in a moderately rich, soft, and somewhat sandy soil; though it will grow in a stiff clayey soil, and even in sand. Permit me to refer you to Mitchell's Dictionary of Chemistry, to Dr. Mease's Archives of Useful Knowledge, vol. 3d, and to the 8th vol. of the "American Farmer."

The culture of Silk. I have before mentioned that the white mulberry had been cultivated, by the ancestors of many of us, by the French who had settled in this state about the close of the seventeenth century. This must have been with a view to the raising of silk; because the white mulberry had been always cultivated in France and in those parts of Europe, where silk had been raised for several centuries. The red and the black mulberry are native trees. South Carolina, therefore, has long possessed the three kinds of mulberry, which afford the food required to raise silk-worms. The culture of silk is now about to claim the attention of the United States; and it has already succeeded in every part of the union, where the experiment has been made. In all ages silk has been admired and worn as a luxury attached to wealth and splendour. The silk of China has always been deemed the finest, the whitest and most beautiful. In that country its culture has ever been a national concern and has always employed the female industry of the most distinguished families of the empire. It originated in China at a very early age of the world; hence it spread, but very gradually, through the other countries of the east, to Greece and over the southern portions of Europe, and lastly to Germany: but its progress was by the most excessively slow degrees; so much so, that during the time of the Roman emperors, a pound of silk was valued, at Rome, at a pound of gold. The white mulberry is cultivated in China to feed silk-worms. In this state it has been found that these worms will feed also on the red and black mulberry, as well as on the white. The silk worms which produced the sample of silk raised at Georgetown, and which was shewn to this society at its last meeting, were fed indiscriminately on leaves from the black, as well as from the white mulberry. I have seen a sample of silk from Statesburg, which I thought, for beauty, for whiteness and lustre, was equal to the finest silk imported from China. Silk was raised in this state long prior to the revolutionary war, and there does not exist the smallest doubt but that its culture may be carried to any required extent, and that it will become a source of wealth not to be counteracted.

Most of the silk consumed by us, has hitherto been imported from the East Indies, principally from China; though a respectable portion has been from Europe. The immense amount to which these importations at last extended, excited the attention of Congress. The subject was referred to the committee on Agriculture, from whom a very lucid report was made, stating the interesting fact, that the mulberry tree grows indigenously throughout the United States, and that silk may be raised with facility from the southern to the northern boundary of the union. Several interesting facts are mentioned in the report. From the year 1821 to 1825, both included, the value of silk goods imported into the United States, was $35,156,484. The value exported, was but $7,963,011. The export of breadstuffs during the year 1825, was $5,417,997. The import of silk, was $10,271,527, and the export was $2,565,742. The supposed consumption, therefore, was $7,705,785. During the year ending 30th September, 1827, the imports of silk, were $6,680,475. The exports, $1,690,126. The supposed consumption, $4,990,349. The rice exported, amounted to $2,343,908. These facts are as important as they are astonishing, and shew that the United States must attend to this great object, the raising of silk. A letter from Dr. James Mease of Philadelphia, presenting to Congress "a Treatise on the rearing of silk-worms, by Count Von Hazzi of Munich," was in February last laid before that body. The treatise has been published by order of congress, and is now in possession of the people of the United States. This treatise, together with a number of interesting communications on silk, published in the "American Farmer," contains all the information required on the subject. In a few years, the culture of silk must become a very important source of wealth to our country.

My limits will not permit me to go into any detail or say much respecting manures. The subject is a science of itself, founded on chemical facts, and on the nicest analysis. Were I to attempt the subject, I would be obliged to state the theories and experiments of the best chemists, and particularly what has been written by Mr. Richard Kirwan and by Sir Humphrey Davy; also what is contained in Dr. Cooper's edition of the Domestic Encyclopædia, and in Loudon's two works on Agriculture and Gardening. My experience relative to manures has been but little, because my attention has been chiefly confined to the culture of rice, and that on tide lands, where no manures are used. My opinion has always been that climate has much to do with every chemical action on soil, and that substances which would act as manures, in a northern, would not answer, certainly not effectually, in a southern latitude. This has been proven by plaster of Paris.[*] My idea is, that in northern climates, the substances employed as manures should be mineral and stimulating. In southern climates, those substances should be more of the vegetable kind, or of well decomposed or fermented matter, aided by irrigation.—And, that in intermediate climates, the manures may partake of both according to the nature of the soil; stimulating substances or manures being used on soils of a close texture. In all climates the land should be drained as circumstances may require, to suit the crop planted. I consider South Carolina as coming under my second position, and that the manures used should not be very stimulating, but such as with the aid of water, from rains or otherwise, will afford food and nourishment to the plants cultivated. Strong and stimulating manures will most generally cause the crops on our high lands to fire in dry weather. Whereas, if decomposed or fermented matter be used, and the land be continually ploughed or stirred, a partial crop may be made, even though there be a drought. I use every year on my high lands, which are of a light soil, for oats and potatoes, rice-straw and other barn-yard manure. The oat stubble forms a manure, with straw, for slip potatoes. In my corn fields, which are also manured every year, I use cowpen and straw manure fermented; and the corn stalks are also ploughed in. By this method my high lands improve, and I make fair crops according to the seasons. For further information I refer you to the several interesting communications which have been made to this society, and to the valuable papers on the subject in the "American Farmer."

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[*] See Note G. at the end.

Next in importance to the fields of a plantation, are its requisite buildings; and it is to be regretted that more general attention is not paid to them, and that in some instances, they are so arranged and put up, as that the materials used may be considered as an entire waste. Good negro houses are necessary for the health and comfort of our negroes, and they may be arranged in such manner, as to give a neat village appearance to the whole establishment. Barns and mills should be so built as to combine solidity and strength with utility: and the planter's dwelling, his overseer's house, and all the buildings attached to both, could be so constructed without much additional cost, for materials or for work, as to unite convenience with taste. To effect these objects, little more is required than to make at first a judicious arrangement as to location, and to have good plans and drawings prepared, before an attempt be made to build. Too much attention and pains as to construction, cannot be given to the mills and machinery required for a planting establishment. Without machinery the planter cultivates for others, and not for himself. After he has made and harvested his crop, his next care must be to prepare it in the best possible manner for market, and for exportation. On this position we must all agree; and also that the object can only be effected by appropriate machinery. Where the rice planter cannot put up a water mill, it will be to his interest to pound his crop with a machine moving by animal power; such as was used about thirty years ago by most planters. He had better do this than send away his rice in the rough, thereby depriving his estate of the offal, and suffering himself a very great loss. If he has a situation for a water mill, although I would not recommend in all cases an expensive tide mill, yet I would propose his building one of cheaper construction; such as those put up by the planters before the large tide mills were built. To aid the planter on these subjects, permit me to refer him, on mechanism, to a very excellent work, the "Operative Mechanic," and to "Evans' Millwright's Guide;" and as relates to architecture, to the works of Mr. Peter Nicholson, and of Sir William Chambers, where the orders are well delineated and explained. The planter can afterwards, by reference to plans of buildings, rural or otherwise, draw advantageously what will suit his convenience and best accord with his means.

Gardening should also claim a part of the planter's attention. This has ever been considered as an improved branch of agriculture. I have always regarded it as a good test of civilization arising from agriculture; shewing that the planter is not only skilled in the culture of his fields, from whence he is to reap his crops for market, but that he has turned his attention to the elegancies of life. A garden of about one and a half acres, or at the extent, two acres, would not only furnish every vegetable which could be required for the table, but would also afford an occasional supply for his labourers, and even for his stock. To this part of his establishment he may also add an orchard; and if his many occupations will permit, a vineyard. For the mode of culture and management of these, I must request a reference to the "American Farmer," to a small work by Mr. William Prince of New York, on Horticulture; to the valuable communications and essay of Mr. Herbemont, to London's two Encyclopædias, and to the "Southern Agriculturist."

Should the foregoing objects be attended to, in the course of a few years, the plantations, every where, will become valuable to their proprietors, not only for their productions, but also for affording them the most comfortable and desirable residences.[*]

I consider it unnecessary for me to say much on the raising and improving the breed of useful animals. It is a subject on which our society has repeatedly expressed an opinion, in print and by distributing premiums; and more particularly in the purchase made during the last year of Raymond and Burleigh, from the highly improved stock of Mr. John Hare Powell of Pennsylvania.[†] The fact has long been ascertained that fine horses can be raised in this state, proper attention being paid to them. Before our revolutionary war, when the planters resided more on their estates, horses of full blood were raised and brought on the turf, and their performances were found frequently to equal those of the best horses of other countries. Our state has been of late years, and is now, indebted to gentlemen of the middle and upper country,[‡] for their laudable attention to that essential and very important object. The period has now probably arrived, when this state should pay particular, and more than usual attention to the raising of sheep; and it is a fact well ascertained that their number may be increased by us, almost to any extent, and that our merino and other wool is of a very fine quality. I have never been for forcing manufactures, and have always been of opinion, that until the population of our state be very much increased, we had better confine our attention to our very abundant and rich staples. But if the productions from our agriculture are to be kept among ourselves and at home, and our foreign commerce is to be curtailed, and cut off to an extent which may eventually require direct taxes to be levied, to defray even the expenses of our government; and all this to satisfy the cupidity of, comparatively, a small portion of the population of the United States; I think the time has arrived, when we should appropriate a part of our cotton and our wool to the manufacture of clothing to supply our own wants at least. Our upper country abounds in situations on our rivers, and other water courses, on which factories may be erected in any number: and by means of them we may be supplied with clothing, if not beyond our wants, at least to an extent to preclude the necessity of importations from the northern factories. It does not come within my limits, or the design of this address, to discuss questions relative to taxation, and the imposition of duties which will have a material effect on our commerce;—and which will make the agricultural states pay a tax exclusively for the benefit of the domestic industry of a limited number of citizens of other states; but my opinion is, that were several large and well conducted cloth factories established in our state, they would not only be of great consequence to ourselves, but would have a tendency, in a great measure, to do away some of the partial advantages avariciously expected, and at our cost, to be received by the northern manufacturers. But the evils complained of by us, are not, however, to be done away with by counter manufactures. The subject is certainly one of the greatest importance; of great difficulty, and one which involves constitutional questions and state rights. We must, therefore, expect that our legislature will act thereon: but in doing so, will act with wisdom, and in a manner compatible with our true interests, as well as with the honor, dignity and sovereignty of our state. I must nevertheless indulge the hope, that the whole subject will be weighed with deliberation, and with calmness; and that no rash measures will be pursued. Collectively the United States form a great nation; and we have hitherto enjoyed blessings unknown to the nations of Europe. Let us turn to the pages of history, and read the fate of all states surrounded by other and stronger powers; and of states possessed of different interests, and governed by ambitious men:—Pause then; and let the maxim so frequently applied to our union be remembered, "United we *stand;* divided we *fall!*" I have, however, said more on this subject, than I, at first, intended.

One more topic before I conclude. It has ever been of the utmost importance to an agricultural country to have good sea-ports. A large and flourishing commercial city gives life to agriculture, and to every species of husbandry; and neither can flourish without reciprocal aid. The productions of agriculture would waste on the soil on which they grew, if there be no vent for their exportation, no shipping engaged in a free and liberal commerce, to carry them away, and exchange them for the productions of other countries. With these remarks, permit me to recommend to every agriculturist, to every citizen, to all persons, to use their exertions for the prosperity of the city of Charleston; and be assured that she in her turn will reward every liberal effort. Those exertions should be made in various ways, so as to effect different and separate objects. Many, a great portion of the inhabitants of the city, though not engaged in agriculture, but in the learned professions, in mercantile pursuits, and in the mechanic arts, yet lend their assistance to that branch of industry, and, in a great measure, rely on the aid of the agriculturists for many comforts, if not for their support. At present that portion of the community in Charleston, are obliged to depend on the northern states for numerous supplies which had better be raised at home. Cannot the agriculturists furnish these supplies, and do away the necessity of procuring so many articles of provision, live stock, poultry, corn, oats, hay, butter; and even the commonest supplies of vegetables, from the northern states—whose interests, at present, seem to be so different from our own? The agriculturists can certainly do so. Let them send to the city every production not required on their plantations; and cultivate, make and raise the objects of her wants. Let them aid her merchants and mechanics, her citizens generally, every way in their power; and they, on their part will liberally repay; and agriculture will find every advantage and support which a commercial city can give to its productions. It will be said that the conveyances to the city are many times difficult. This rests very much with the agriculturists. Let all the water courses, all the ways, all the roads required, be cleared, made, mended and kept in order. Let us all—let every citizen join with the agriculturists in establishing rail-roads leading to the city. The access will then be easy; the supplies will then be forwarded, and all will be rewarded—liberally rewarded. But there is another very important mode by which every citizen can afford aid to Charleston; and by rendering it, all will reap the most important advantages. Let every one of us come forward, and promote in every way in our power, the schools, the seminaries of learning, by means of which our children, our dearest offspring, can be liberally educated at home, under our own eyes: by which they can be reared, as it were, in our own bosoms, without being sent away from us, and at the tenderest period of their lives, to be estranged from their parents, their friends and their country. I will not insult your understandings, by attempting to prove the wisdom of this recommendation. There are at present several excellent private classical schools in the city. The "South Carolina Society," by establishing her two seminaries, has done an act which will crown her with glory. The Medical College has already become an honour to the city. The Charleston College is now rearing again her head, and her trustees are making every exertion to make her not inferior to other colleges. They are aided in those exertions, by the learning and talents of a reverend gentleman of high acquirements and worth, whom they have engaged as Principal. Besides, they have erected, and are now completing a large and commodious building, handsome as to appearance, and in every way suitable for the College of the city of Charleston. Their plan is to enable every planter, every merchant, every mechanic, every professional man, all persons whomsoever, to have their sons educated learnedly and liberally at home, and under their own superintendence. To accomplish their laudable views, the trustees require aid. I know that they require aid from the enlightened and the liberal. Let us attend the commencement of the college in October next. We will all be gratified.—The exhibition will be to us an intellectual treat. Afterwards let us resolve to contribute according to our means, to aid the college. The trustees will receive our subscriptions at any time: our children will thank us—the rising generation will thank us: we, ourselves, will be constantly enjoying pleasures originating from our own deeds; and, when we shall have gone hence, and shall be gathered to our fathers—future generations will bless us! All such acts must advance the prosperity of an agricultural country.

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[*] See Note II. on Overseers.

[†] See Note I. at the end.

[‡] Particularly to Col. Richard Singletoo of Sumter District.

Mr .President:—In conclusion, permit me to observe, that the anniversary of this Society has ever been a source of pleasure to every member of us. It affords to us the opportunity, not only of greeting each other after the lapse of a year, but of comparing our agricultural pursuits, of profiting by each other's experience, of stating the success of plans, which had been last suggested, and which have been advantageously pursued, and of proposing new improvements to be effected during the ensuing year. It is by an association like this, that the agriculture of our country does and must progress; the experience and energy of each individual, profitably exercised, constituting the collective energies of the state; that every agriculturist is enabled to furnish aid to a liberal commerce founded on enlarged views, and happily blended with agriculture: In a word, it is by an association like this, that we can all exert ourselves for our country, pursuing measures planned with judgment and executed with skill. Long may we continue to enjoy this pleasing intercourse; and although, at times, we may have to strive and contend for awhile, against laws, adverse to our agriculture and our commerce; ordained by those to whom limited power has been delegated, but by them sometimes mistaken, if not misconstrued; yet in the end, by exercising in our several capacities, sound discretion united with becoming firmness, we must succeed in our just expectations and requisitions. South Carolina will advance her own interests, and the interests of every state in the Union, by requiring by constitutional means, and through the medium and wisdom of her legislature, what are only her just rights; and by her merited influence, she will continue to aid, in the preservation of, and in the keeping entire, the confederation, of which she has always been a distinguished member.

Notes.

G.

I once made an experiment on plaster of Paris. I tried it with corn, oats and potatoes. The plaster was made into a wet paste, in which the seed was rolled or mixed, and some of the plaster in a dry form was also put into the ground with the seed. Equal parts of the field were planted without plaster, and adjoining those which were planted with. I found the plaster made no difference whatever on the corn and oats: the parts of the field planted without grew just as well, and the product was about the same. But there was a difference as to the potatoes. The season had been very dry, and I found that where the potatoes had been plastered or coated with the plaster of Paris paste, they came up about a week sooner than the potatoes planted without the plaster. I was not at the gathering in of the crop, but there was a difference as to the produce, in favour of the plastered seed: for when the potatoes were given out for provisions, those from the plastered field lasted four days longer than those from the field planted in the usual way. The question now is—was the difference caused by the plaster of Paris? My opinion is, that it was not: that it was caused by the water, which with the plaster formed the paste, and which was absorbed by the potatoes planted as seed; and this caused them to sprout a week sooner than otherwise they would have done. Had mud been taken from the ditches of the rice fields, and used for the paste, the effect would have been most probably the same. The plaster had certainly no effect on the corn and oats. I am aware of all the properties attributed to plaster of Paris. This experiment was made in the spring of 1804.

H.

On Overseers and Managers.

It is not unfrequently the complaint of planters, that after they have made every exertion, so as to entitle them to expect good and profitable crops, their plans having been frustrated during the summer, when they have been obliged to be absent from their estates; and that their crops have been materially injured from the inattention of their overseers and drivers, in whom they had confided. I have always thought that the remedy rested with the proprietor of the estate, so badly managed; though it will require him to use his firmness, if the evil he complains of has been of long continuance. The remedy is this: let there be no privileged persons, but let every negro on the estate be treated according to behaviour and merit. Abandon the management by drivers, and compel them to obey the orders given by the overseer or manager, to whom the proprietor or planter should always give his own directions. Let the estate be well furnished with every thing requisite; let supplies abound, but they should not be other than necessaries. Employ no overseer or manager who is not a man of capacity and of undoubted character, and if possible let him be a man with a family. When such a person is found, give him liberal wages, and make him comfortable. Let it be seen by the drivers and all others, that confidence is placed in him, and then look to such an overseer or manager for the crop. If the estate be a large one, and the plantations be adjoining and contiguous, employ but one assistant overseer, who must obey the manager. At any rate, have as few to give orders as possible. On this plan an estate can be well managed, and without confusion, if the proprietor will only adhere to what he has established. Severity is seldom required on an estate: only cause all orders to be obeyed, and in a short time every thing will go on without difficulty. I have pursued this plan for more than seven years, after long experiencing the old driver-management, with a common overseer, as a white man, on each plantation: and by the change I have more than doubled the income from my estate. Good men can be procured, if good wages be given. I will also observe, that in every parish it would be very desirable that there be a church, at which the managers and overseers should be attendants; and, if possible, a good school for all children; and of this the clergyman may be the master, if his charge could admit the measure.

I.

Raymond and *Burleigh*. The unexpected death of one of those fine animals may justly be considered a misfortune to our state; but we must indulge the hope that our expectations will be realized by the services which will be rendered by the survivor, Burleigh, now the property of Mr. James Cuthbert, in improving the breed of our cattle.

INDIAN CORN.

Important Observations on the Preservation of Indian Corn from the Fly or Wevil, in the Corn House.

Dear Sir: For many years past, I had determined if ever I should build another corn house, it should be double the size necessary for housing my corn in the old way; intending to store it as pulled with the husks on. In the summer of 1827, I built such a house with a door at each end, and in the month of October, from the 7th to the 27th, housed my corn therein from the carts, as it was hauled in with the husks thereon. When the mornings were damp, the part then pulled was deposited in the barn for immediate use. Within two or three weeks past, I have husked out by an invalid hand, all that remained of the crop so put away, and find that it has kept to admiration; it comes from the husk glossy and fresh like new corn, and not a layer more imperfect and unsound than would have been, had it been husked out at the time of pulling, and then separated in the usual way.

I send you three ears of my last year's crop, numbered 1, 2, 3. The two ears numbered 1, 2, were stored in the corn house as above, and lately husked. On examination you will find No. 1 perfectly free from fly holes, not a grain thereof injured; this ear was covered entirely with its husk. No. 2 has the most of its grains towards the small end only, fly eaten, as you will observe; this ear was not covered entirely with its husk out to the end thereof, and the part fly eaten exposed. No. 3, is an ear that my manager, it being handsome and speckled, accidentally took from a heap as they were husking for immediate use in the fall of 1827, and carried into the house and put it into his closet, where it remained until lately. As we both observed in husking out during the last two or three weeks, that a good deal of the corn was at the small end fly-eaten, and that it was never so in any of the ears except those not fully protected by the husk, it induced him to bring out and shew me the ear No. 3, now sent, which had been in his closet during the year past. This ear as you see is literally eaten to a honey comb, almost every grain thereof, by the fly.

From the above circumstances I draw the conclusion, that if I had husked out my crop last fall in the usual way, and so housed it, the whole thereof would have been totally ruined by the fly. Such an event did occur to me, as to my crop of corn made in the year 1826, which was husked out and housed as is generally practised. What remained thereof in the fall of 1827, was scarcely fit to use, from the quantity of fly therein. I am therefore satisfied that the plan of housing corn with its coat on, at any rate one half the crop made, is infinitely superior to the old method; moreover it is less likely to be pilfered.

The fall of 1827, winter and spring of 1827, 1828, were, from the great quantity of rain that fell, peculiarly unpropitious to my experiment; on examination through the winter of 1827, 1828, the entire mass of husks and corn, for we dug into it, was often found in a giving state, and sometimes heated in a small degree, which alarmed me for its safety, but on the occurrence of a north wester, the husks almost immediately became as cold, crisp, and dry as when put into the house.

Some of the husks themselves were lost, perhaps one fourth part, being those got out in the summer time. However the cows, even then, although well pastured, seemed fond of and did eat them heartily, which I ascribed to the nubbins and some ears not completely husked and left amongst it.

I saved all the husks lately made, and put them in a shed convenient to the cow yard, and shall begin feeding with them. With great respect, yours,

JAMES CARROLL,

Mount Clare, Oct. 3, 1828.

CROPS IN THE SOUTH.

Mr. Skinner, *Stokes county, N. C., Sept. 26, 1828.*

Agricultural productions, notwithstanding some severe drought, are in abundance, having yielded well, and of consequence are low in price; and I believe it is so nearly throughout our state. A. S.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Second Annual Report of the President and Directors to the Stockholders of the Baltimore and Ohio Rail Road Company.

In accordance with the provisions of their charter, the President and Directors of the Baltimore and Ohio Rail Road Company, submit, at this general meeting of the Stockholders, the following statement of the affairs of the company; and it is with sincere gratification they can indulge the belief, that in a review of the occurrences of the past year, there will be found nothing to impair the confidence of the stockholders, in the successful accomplishment of the work in which they are embarked: or in the least degree to discourage the expectation, that the early completion of the Baltimore and Ohio Rail Road, is otherwise dependent, than on a judicious application of the means of the company.

The preliminary examinations which were in progress, at the time of our last annual report, having resulted in a conviction of the entire practicability of a Rail Road from Baltimore to the Ohio river, were immediately succeeded by experimental surveys of the several routes indicated by the Topography, as suitable to the contemplated object, and upon a careful consideration of the facts submitted to the board, in the very able and satisfactory report of the U. States Topographical and Civil Engineers, they were convinced that of the various routes which had been suggested, *that* along the valley of the Patapsco, and thence in the direction of Bennet's, Bush or Linganore creek, to the "Point of Rocks," (where the Potomac passes the Catoctin mountain) was so decidedly preferable, as to preclude any hesitation in awarding it the preference.

The measures adopted by the Board of Directors in pursuance of this decision, had reference not only to the earliest commencement of the Rail Road, but were dictated by an earnest wish to fulfil the expectations of the Stockholders, and the community generally, that *no part* of the work should unnecessarily be delayed. Accordingly, as soon as it was fully ascertained that the best route from the "Point of Rocks," to Cumberland, would in general confine the Rail Road to the margin of the Potomac, the Directors instructed two of their Engineers, to make the necessary surveys also along that line.

These instructions were promptly complied with, and a location effected; at the same time the necessary titles to the land were acquired, upon almost the whole of that section bordering on the Potomac. The Board had scarcely effected this object, when a conflict arose with the Ohio and Chesapeake Canal Company, upon the subject of an alleged pre-emption right on the part of that company, to certain portions of the land, occupied in the location of the Rail Road. This question is now in a train of legal adjustment, and will not, it is believed, in the least degree, retard our operations.

It would have been in perfect accordance with the views of the President and Directors, to have definitively concluded on the most suitable route for the Rail Road throughout its entire course from the city of Baltimore to the Ohio river, but they would adduce the various and important objects, the immediate consideration of which could not be deferred, together with the complicated duties, incident to the organization and commencement of so great an undertaking, as abundant reason why the decision of a question so interesting in its issue, not only to a large portion of the inhabitants, residing westward of the Alleghany mountains, but to those of a fertile and populous section of our own state, has hitherto been unavoidably postponed.

The precise direction which may be most recommended for a continuation of the Rail Road, between the "Point of Rocks" and the ridge dividing the waters of the Patapsco and Monocacy, is dependent on the relative advantages of the three routes already enumerated, and remains to be disclosed by the results of surveys not yet completed, but which, however, are now in the rapid progress of fulfilment. A wider field has been presented for the selection of a route west of the Alleghany mountains, than was open to the investigation of the Engineers of the company, during their general reconnoisances, between Baltimore and the Ohio—but the exigencies of the service having not yet permitted the Engineers to resume their examinations beyond the town of Cumberland, the Board can at this time, only assure the stockholders, that the earliest opportunity will be embraced to obtain all the information requisite, to a judicious location of the western division of the Road, in order that its construction along the whole line, may be undertaken as early as circumstances will admit.

The charter granted by the Legislature of Pennsylvania, at its last session, by which the power of constructing the Rail Road through that state, is secured to the company with very liberal and satisfactory privileges and immunities, promises to afford important facilities. From their "present knowledge of the country" (derived from surveys made by them on a former occasion) the Engineers remark in their report, "we are aware that serious difficulties may be avoided by entering the territory of Pennsylvania, and that after we shall have passed the Laurel ridge, by the valley of the Youghagany, we may, from the favourable direction of different tributaries to the Monongahela and Ohio rivers, prolong the Rail Road to a point on the latter, as far south as the Pennsylvania line, or even to the mouth of the little Kenhawa, with comparative facility, which is as far southward as the charter granted by Virginia permits; or if it should be deemed preferable, we may continue down the valleys of the Youghagany and Monongahela rivers to the city of Pittsburg." This latter route having been shewn to be practicable for a canal, we may reasonably conclude would not prove less so for the construction of a Rail Road.

Duly impressed with the importance of securing the services of scientific Engineers and a Superintendent of construction of competent talents and experience, the Directors devoted their earliest and unremitted attention to this object, and they have the gratification to inform the stockholders, that in the organization of this branch of service, they have succeeded to their entire satisfaction. They would at the same time, as in intimate connexion with this subject, acknowledge their obligations to the general government, for the unceasing and cordial support, which the company continues to derive from the operation of that liberal and enlightened policy, to which, from the commencement of their undertaking, they have felt themselves so much indebted.

The President and Directors now turn with pleasure, and especially would they direct the attention of the stockholders, to the encouraging results of their short experience in the actual construction of the Rail Road.

The day, on which, in the presence of assembled thousands, its auspicious commencement was honoured by the active agency of our venerable fellow-citizen, Charles Carroll of Carrollton, was immediately succeeded by renewed efforts, on the part of the Directors; by a reference to the Report of the Board of Engineers hereto appended, with the accompanying documents, it will be seen that there has been no relaxation in the active labours of any of the officers of the company.

On the 7th day of July last the definitive location of the road was commenced at the "First Stone," on the south west boundary of the city, by Lieuts. Cook, Hazzard and Dillahunty, under the immediate direction of Captain M'Neill, to whom the performance of this duty had been entrusted, and on the 14th day of July, notice was publicly given that from the 1st to the 11th day of August, proposals would be received for the grading and masonry on a distance not exceeding twelve miles. The location having been effected, and being unanimously approved by the Board of Engineers, contracts were accordingly, as early as possible, entered into, for grading the road and constructing the necessary masonry, on the twenty-six sections, into which the superintendent had subdivided a distance of eleven and three fourth miles, embracing that part of the road between the "First Stone" and Ellicott's mills on the Patapsco. The Directors are not aware that any prejudicial consequences resulted from the short notice which preceded the first letting, or that greater competition would, at that time, have caused any material change in the contract prices, which, although they are believed in every case sufficient to insure the contractors against loss, are not thought to be generally higher than has usually been paid under similar circumstances. So great, however, are the increased facilities now experienced from the improvements which have been introduced on several sections, by means of temporary Rail-ways for the removal of earth, that a great reduction in the cost will accrue to the contractors. The profitable results of these improvements will be felt in subsequent contracts.

The contractors have all commenced their labours, and are rapidly advancing with their several sections. Three of which, including a distance of one and a half miles, are already finished for the reception of rails, and there is every reason to expect that the grading and masonry on all, will be completed by the 1st of June next.

No personal security has been considered necessary to insure a compliance with contracts; but in order to render their fulfilment certain, and that the company may be secured against the possibility of loss, one-fourth part of the relative value of masonry, and one-fifth part of that of the grading, to be estimated monthly by the Superintendent, will be reserved, until the whole shall be accepted as completed. From the report of the Board of Engineers, heretofore alluded to, it will be seen that while the average cost per mile for the grading and masonry, on the first eleven and three-fourth miles, is about seventeen thousand dollars, the cost of the fourth and fifth sections, which include the great cut of seventy-eight feet depth, and extends but about one thousand three hundred yards, *is one-third of the total of this cost;* and that the first twelve sections, extending from the "First Stone" to the valley of the Patapsco, and including five and three-fourth miles, or about one half of th total distance to Ellicott's mills, involve an exditure of one hundred and fifty-seven thousand dollars. The remaining sections, along far the most difficult ground, to be encountered *in the valley of Patapsco,* will cost but forty-one thousand dollars. In other words, *to sustain the level of sixty-six feet above mid tide,* which extends two and a half miles above the twelfth section, till we have passed the valley of Dorsey's run, will cost one hundred and seventy-three thousand dollars, leaving the cost of the remaining distance to Ellicott's mills, including the charge of a viaduct, about two hundred feet long across the Patapsco river, at an average of six thousand dollars per mile. As a full explanation of the causes which have unavoidably led to so heavy an expenditure in the commencement of the work, will be found in the report of the Board of Engineers, the Directors would merely invite the attention of the stockholders, while they shall for a moment dwell on a few prominent facts.

Waiving a particular discussion of the relative advantages of such a location as has been adopted, in comparison with any other, which under different circumstances might have been recommended, the Directors are satisfied that the elevation above tide at which the rail-road was commenced, is best calculated to secure the permanent interests of the city of Baltimore.

It is obvious also, that with the prospect almost arising to certainty, of the greater amounts of trade being directed *Eastward,* at least for a series of years, their Engineers could not, with any regard to the economical application of motive power, admit on this part of the route, the least *descent* in its progress *Westward;* and since any greater elevation than that at which the road commences, would but have increased the obstacles presented by the steep and rugged hill-sides bounding the Patapsco, (to say nothing of the disadvantages which would have resulted in passing the numerous broad and deep ravines,) they were constrained *to sustain a level* at greater variance with the natural surface of the ground than will again be necessary, as the Directors are assured, and firmly believe, on any of the remaining part of the whole route to the Ohio river.

This opinion is the more confidently entertained, because it is known, that instead of traversing the country at right angles to its ridges and vallies, as was unavoidably the case, between the city of Baltimore and the valley of the Patapsco, the route of the road will, hereafter, with few exceptions, conform to the direction of streams, whose gradual slope, both eastward and westward, is so well adapted to the advantageous application of locomotive power, that deep cutting and filling, which have been found to be such fruitful sources of expense, need very seldom be encountered.

The Directors therefore conceive it to be of but comparatively slight importance, that, in order to sustain the desired level on the approach of the road towards the city, it has been necessary to incur an average expense for 7½ miles, of nearly twenty-four thousand dollars per mile, or that the average cost per mile of preparing the first 12 miles, for the reception of the rails, will be about seventeen thousand dollars, when they have been enabled to avoid a single inclined plane for forty miles on the road, and at the same time rigidly to adhere to principles in every way calculated to insure to the road the greatest possible efficiency, and when they moreover have the well grounded expectation, that notwithstanding such an accumulated expenditure on so short a distance, the average cost of even the first thirty miles, will fall considerably below the original estimate of the company at the time of its organization.

From information obtained by the surveys which are now in progress in the valley of the Patapsco, the Engineers are of opinion that the average cost of grading and masonry, on the district now in preparation for contract, will not exceed three thousand dollars per mile; and since a very gradual ascent may be attained under nearly or quite as favourable circumstances, even to the summit of the ridge dividing the waters of Patapsco and Monococy, it will have resulted that the average cost of preparing the first forty miles for the reception of rails, will not exceed eight thousand dollars per mile, and with the most liberal allowance for laying the road with double tracks, and completely fitting the rails for the reception of carriages and the application of motive power, the total cost per mile throughout that distance (notwithstanding the accumulated expenditure on the first twelve miles,) is expected not to exceed seventeen thousand dollars per mile.

The obvious causes of the diminished cost which will certainly attend the construction of the road west of Ellicott's mills, may be referred to the ease with which the location is effected beyond the utmost reach of freshets, without encountering, as it heretofore did in the valley of Patapsco, (in order to sustain the proper level,) the rugged and steep hill-sides which bound that stream; and to the absence of those other prolific sources of expense before alluded to, the recurrence of which, we are assured, need not be apprehended.

An analagous course of reasoning, to that which affords so favourable a view of the first forty miles, is calculated to inspire the most encouraging anticipations as we advance westward; for, from the report made of the routes which have been surveyed through Bush and Bennett's creek, by Lieutenants Barney, Gwynn, Trimble and Thompson, and those now in progress in connection with the route by the valley of Linganore, *we are assured that no obstacles of moment will intercept the course of the rail-road in its passage to the Potomac river.* Indeed, the country intermediate to the Potomac and the ridge dividing the Monococy and Patapsco, is ascertained to be particularly adapted to the easy execution of our purpose. To embrace in one view the remainder of the route as far as it has been determined on, we shall find, that although along the Potomac there are some exceptions to the general favourable nature of the ground, we have already encountered far the most formidable obstacles that can arise on the entire route from Baltimore to the coal mines in Alleghany county; whilst these obstacles are rapidly yielding to our efforts to overcome them.

The President and Directors, therefore, in conclusion of this part of their subject, assure the stockholders, that while they are fully apprised of the difficulties before them, their confidence in the successful accomplishment of their undertaking remains unabated; and that with a steady and judicious application of the means of the company, they repose securely in their ability, to achieve the timely completion of a Rail road, which shall, in all respects, be calculated to secure the greatest facility of intercourse between the city of Baltimore and the river Ohio.

The further location of the road along the Patapsco, preparatory to contracts for construction, is advancing with all practicable despatch, and notice has already been publicly given, that proposals will be received from the 10th to the 20th of October, for the grading and masonry on additional sections, which include about twelve miles, extending from Ellicott's mills westward to the forks of that river.

Arrangements are also in contemplation for procuring the materials that may be required, as the graduation advances, for completing the construction of the first division of the road, and placing carriages upon it, in order that a return to the company upon its expended stock, may be realized without unnecessary delay. Measures are also unremittingly pursued, in order to prepare for contract (with all despatch consistent with the interest of the work) the entire eastern section of the road, extending from Baltimore to the Potomac.

The Board of Directors, in order to possess themselves of accurate information, respecting all the recent improvements in Europe relating to the construction of Rail Roads, and the application of a moving power upon them, have determined to send immediately, two of their Engineers, personally to inspect the works of that description there, and to collect such further information as will ensure to the work, not only its earliest completion, but a successful accomplishment of all its parts in the most economical and efficient manner. On the return of the deputation, the Directors purpose prosecuting the enterprise upon a still more enlarged scale of operation.

It is a source of sincere gratification to the Board to be able to inform the stockholders, that the favourable disposition which was early manifested by the proprietors of land, to cede to the company the ground necessary for the road, continues. Not only has a sufficient width of land along that part of the line now under contract been ceded, without any charge, but the right of quarrying for stone has unhesitatingly been given, and the proprietors at Ellicott's Mills on the Patapsco, with a liberality not less creditable to them than encooraging to the Company, have made a gratuitous donation of a valuable tract, which is advantageously situated for the purposes of a depot.

The Board have assurances that a similar disposition will generally prevail along the line from Ellicott's Mills to the Potomac. From the Point where the road intersects that river, as far as Cumberland, they already hold deeds or full relinquishments on nearly all the important parts of the route. In the very few instances, when deeds have not been voluntarily given, the necessary legal measures have been resorted to, in order to secure a right of way for the road.

Since the last Annual Report of the Directors, the state of Maryland has subscribed for, and become a stockholder in this corporation to the amount of five hundred thousand dollars. There has also been a further augmentation of the stock of the Company, by individual subscriptions, to the amount of one million five hundred thousand dollars; making the amount of the entire capital at this time, four millions of dollars.

Signed, by direction and on behalf of the board.

PHILIP E. THOMAS, *President.*

LADIES' DEPARTMENT.

UNAMBITIOUS LOVE.

Do I not feel a burning glow
Steal o'er my cheek when he appears?
Do not his parting words bestow
  A secret pang too deep for tears?
Have not the dreams, which love endears,
  Each calmer joy and hope removed?—
Oh! no;—my griefs, my doubts, my fears,
  Alone have vanished since I loved.—
Since like the dove of peace, content
Was to my troubled bosom sent.

He leaves me, yet I weep not;—no!
  I court no cause for fruitless pain;
True as the light of day, I know
  That he will come to me again.
And months may pass,—nay years,—in vain,
  Before our bridal torch shall burn;
And would you have me still complain,
  And mar with tears his loved return?
Nay! dearest, nay! calm, patient love,
Nor grief should tire, nor absence move.

Mark you beneath yon hill's gray brow
  A fringe of ancient elms? 'Tis there
He dwells. And when I gaze, as now,

I gather from the summer air
Tidings of *him*, and promise fair
Of days when that dear home will hold
Each breathing thing that moves my care
In one secure and sacred fold!
Say then,—should wayward melancholy
Mingle with hopes so sweet, so holy?

I know, that from the hour I kneel
Before the altar, never more
The world's gay splendours will reveal
For me the charm which once they wore.
No glittering garb must mantle o'er
My wedded heart,—no pearly string,—
No garland round my brows, restore
The faded treasures of the spring;
He boasts that woman's loveliness
Shews purest in the matron dress!

What then?—the crowd, the wreathing dance,
The mimic scene, the festal song
Denied,—joy dwells in lovelier haunts,
And shuns, like him, the prating throng.
And still, our native vales among,
Together we shall range the woods,
And in sweet fancy commune long
With mountains vast and foaming floods;
Finding while hand in hand we go,
A brighter Eden spread below.

You mock my homely joys? smile on!
I cannot dream beneath the skies
A brighter scene,—a happier one,—
Than the dear home which you despise.
And think, what sweeter hopes will rise
When children hang around my knee,
And tears spring up into his eyes
As he enfolds his babes and me
In the long, close embrace,—that blends
The love of "country, home, and friends."

Together, through our infant bloom,
Through life's meridian lustre, thrown,—
Through age's lingering years of gloom,
May neither cling to earth, *alone!*
His kin are kindred to my own,
His joys below, his hopes of heaven,
Are mine;—and when to mercy's throne
We kneel, in trust to be forgiven,
May the Almighty Judge decree
For us one bright eternity!

SPORTING OLIO.

(From the "Rural Sports.")

HUNTING.

The inducements that have operated upon man, to exert his powers, in the retaining animals under his dominion, has been almost universally with the design of converting them to the purposes of food, or to articles of trade; but interest, which has disposed man to subdue the quadrupeds, and tame the birds, has had no part in the domestication of the Swan. Its beauty, and the elegance of its form, have engaged him to bring it to his habitation, merely to decorate it. Never has it been kept captive, but has been destined to adorn the waters in his gardens, and there permitted to enjoy all the sweets of liberty. As a contrast, though perfectly distinct from the motives above alluded to, either of increasing the luxury of the table or the sordid views of commerce, the pigeon has been of late years, singularly unfortunate, by having its domestic harmony invaded, to evidence the superiority of marksmen, and in such efforts of skill, the fable of the frogs, is most truly applicable. We shall select a few of these performances, from the multitudes that occur, almost weekly.

Mr. Keene, of Hammersmith, killed twenty pigeons in twenty-one shots, from a trap, at the regular twenty-one yards distance; and in March, 1811, he killed in a match against Mr. Elliot, the same number, beating his adversary by one.

In Wiltshire the same year, captain Hicks shot against the Gamekeeper of Mr. Maurice, at fifteen pigeons, turned off at the same distance, each killed the whole, and in shooting off the ties, the former missed his sixth bird and lost the match, which was for two hundred guineas.

To return to the pigeon, their rapid flight has been instrumental, for the purpose of conveying intelligence: in July, 1808, a wager was decided, by setting off three pigeons, belonging to a young man, named Wilson, in the borough, who undertook that they would fly thirty-five miles in one hour. They were accordingly set off the same evening at five o'clock, five miles beyond Tunbridge Wells, and arrived again at the residence of their owner, in the short space of fifty-three minutes, being seven minutes, within the time allowed.

Dr. Russell tells us, when pigeons were employed as posts, persons not only placed the paper containing the news under the wing, to prevent its being destroyed by wet, but "used to bathe their feet in vinegar, with a view to keeping them cool, so as they might not settle to drink or wash themselves, which would have destroyed the paper."

In 1807, was in the possession of Mr. Knight, of Chichester, a hen pigeon of the Powter species, who, in that summer hatched three pair of young. She is twenty-one years old, and is considered a remarkable instance of longevity, as Buffon and other naturalists have not allowed this bird, from the heat of its nature, above eight or nine years of life, and to be incapable of procreation, after seven.

MISCELLANEOUS.

ON THE DUTY AND VALUE OF PUNCTUALITY.

MR. EDITOR: ——— *County, Md. Sept.* 1823.

One of the inconveniences I experience here is the want of punctuality. Among merchants it is a cardinal virtue; but does not appear to be much known in the country, where *Farmers "most do congregate."* "Why do you dun me?—is not your money safe?—I will pay when convenient?" Such, too often, are the answers the needy trader or mechanic receives from the man of landed estate, proud of his possessions, and abounding in every thing but ready money, of which he seldom feels the want, and, therefore, cannot realize the want in others differently situated. He has his beef and pork, and mutton, and poultry; his hay and corn, and wheat and rye—every thing but coin. He lives like a prince, and too often feels like one towards those who want such advantages. A man of this kidney will live in decent credit, as a kind neighbour and honest man, although his creditors go without their money for years together. A man of this kind, a sort of feudal lord, appears to be a privileged person. His neighbours are shocked at the idea of sueing him for a debt, although it is the only way of getting payment. It appears to me unjust to withhold from the man who has bestowed his labor on my farm, or spread his groceries on my table, or clothed my domestics and children, his just dues. It is a positive act of *injustice*—and yet we find men not only of quiet conscience under such circumstances, but offended if asked to pay a debt—consider themselves ill used, and, in a passion declare they will not pay until compelled. I have seen, and wondered at such conduct—for I was reared among commercial men, before the mania of speculation broke out, when a failure in an *engagement* to a day—nay, an hour, was *dishonour.*

One of my rich neighbours, who keeps his coach, his horses and hounds, and entertains company all the year round, never pays a debt except through the medium of the sheriff. I happen to know two of his creditors—it will be sufficient to single out two. One his overseer—the other a female weaver. These poor people have worked for him for years without compensation, and with but little chance of any. And yet no one ventures to say he is *dishonest!*

I lately attended a vendue where goods and chattels were going off under execution. Every one was pitying the debtor, whose property was thus under sacrifice; but not a man sympathised with the *creditors*, some of whom had been almost starving for years, for the want of their dues, withheld by this unjust and unfeeling man. I felt indignant, and only regretted that the law's delay had been so great. Why pity him? He had put it off as long as possible. The law, though slow, had at length overtaken him, and was wrenching from his firm grasp property unjustly in his possession, to give it to the right owners; and I felt glad of it, although it broke up a man of some figure.

I have no kind of objection to coaches, hounds and horses, where they are supported by proper means; but I have no patience with a man who indulges in such luxuries while his creditor has to walk (perhaps barefoot,) and go supperless to bed, merely because he, or his wife, has a *taste* for them, or that their neighbour, who can afford it, keeps such things. It is not *honest.*

But "let us return to our mutton." "The punctual man is lord of his neighbour's purse." I knew a man who established a character for punctuality by borrowing small sums, and without using them, returning them punctually at the time appointed. The character thus acquired, enabled him afterwards to gain a fortune. But a man of experience has only to cast his eyes around to see how important it is—how universally the *punctual, fair dealer*, has succeeded in life; and how the *tricky, cunning man*, has failed. There are some exceptions, as we sometimes hear of robberies never detected.

If a man borrow money he should pay it on the day fixed—using no excuse—as, "that it rained and he could not come out; that he had been disappointed in his collections, or that wheat was too low, and he could not sell at a *sacrifice;* or, that he did not suppose a *few days* would make *much odds*." He who makes such excuses knows nothing of the nature or importance of my subject. I often think of the conduct of a worthy man, whom I once knew to walk four miles to pay his more opulent neighbour as many pence due, in change, on a late settlement. "Such an act may appear to some of your young readers as one of great simplicity and folly—mean spirited—and that such a trifle should have been *forgotten.*" It certainly evinced *simplicity*—the simplicity of virtue—and I doubt not it was the best day's work he ever did—for it went far towards establishing a character for honesty and punctuality.

I have known several young lawyers succeed in practice with little else to recommend them, while their cotemporaries, of ten times their talents, failed of success for the want of this virtue. They were not only punctual in paying over the sums collected; but in their attendance at their offices—at the courts, and wherever business and duty required them to be.

I once took great pleasure in dining at a particular tavern—my host was entirely to my taste. The first dish was invariably placed on the table by his own hand while the clock was striking the hour of two. He would not have waited for Gen. Washington himself, who, by the bye, would not have expected him to do so; for he, himself, was of this family—punctiliously punctual. But, while I recommend punctuality, I am far from advising running in debt in any way—it is a rock on which many young men are wrecked. "Borrowing dulls the edge of husbandry," and any one addicted to it is a troublesome neighbour. *Candour and fair dealing* are virtues of the same stamp. "*Honesty is the best policy,*" whatever the speculators and horse jockies may think to the contrary. OLD SCHOOL.

INSTINCT OF RATS.

A farmer's wife in Cheshire lately caught a rat, and being determined to make an example of the culprit, as a terror to the species, with which her house was much infested, she took the following barbarous method. She put it into a covered iron pot which she placed over a brisk fire; she then went into a place of concealment from whence she could observe the vessel that contained her martyr. The cries of the sufferer soon brought into the room a numerous assemblage of rats. Each testified its rage and distress; five or six actually climbed to the pot lid, and tried by every means within the power of instinct to relieve the poor victim. When the screams of the sufferer ceased, the rats dispersed, and strange to add, not the least vestige of those vermin has since been seen in the house.

EXTRAORDINARY DESPATCH.

A friend in Portsmouth, in whose accuracy the utmost reliance may be placed, informs us that on Monday last, the *fore, main*, and *mizen masts and bowsprit* of the Frigate CONSTELLATION, lying at the navy yard, Gosport, were placed in their respective stations on board that ship, in the short space of one hour and fifty-two minutes, viz:

The Fore-mast in 28 minutes.
" Main " 43 "
" Mizen " 23 "
" Bowsprit 18 "

RECIPES.

CURE FOR THE CROUP.

Dr. Godman has recommended the following simple and certain remedy for a common and fatal disease among children. He says, "whenever they are threatened with an attack of cynanche trachealis (*Croup*) I direct a plaster covered with dry Scotch snuff, varying in size according to the age of the patient, to be applied directly across the top of the thorax, and retained there till all the symptoms disappear. The remedy is found to be always effectual when applied in the first and second stages of the malady." The plaster is made by greasing a piece of linen, and covering it with the snuff.

TO MAKE INDELIBLE INK.

Indelible ink, for marking on linen cloth, &c. is made by dissolving one drachm of lunar caustic and half an ounce of gum arabic in half a pint of pure rain water. Previous to using it the cloth to be marked should be wet with a preparatory liquor made by dissolving one drachm of salt of tartar in half a gill of rain water, and thoroughly dried and ironed. [*American Adv.*

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 17, 1828.

☞Our time was so much occupied at the Cattle Show yesterday, as to leave us no opportunity to give a sketch of it in this number of the American Farmer.

ITEMS OF NEWS.

Report of Peace between Buenos Ayres and Brazil.

The brig Jane, captain Atwater, arrived at New York on Monday night from Rio Janeiro, bringing papers to the 23d August, three days later than the advices received at this port. It is stated that the commissioners had concluded a *peace*, and that information of the result was to be officially communicated to the English government by a fast sailing vessel provided by the British minister.

A letter to a commercial house in N. York, dated Rio de Janeiro, August 20th, says:

"There is but little activity in our market, in consequence of the undecided state of affairs. Flour is rather heavy at $13 *a* 14 per bbl. No disposition to speculate, most persons wishing to wait the conclusion of the negotiations now pending.

"Our produce is not so firm. Coffee has declined and not much doing in sugar and hides—our quotations are almost nominal."

FROM CARTHAGENA.—The brig Athenian arrived at New York on Monday, in 20 days from Carthagena. All was quiet in Columbia. Gen. Bolivar in supreme command, with the titles of President and Liberator: and the first decree of the new Constitution issued. The ministry is composed of six Secretaries of State, as follows: Home Department, Foreign War, Treasury, Interior, Marine, Justice. The Council is composed of these Secretaries. One Councillor for each Department. The present government is to continue in force until 1830, when a general Congress will be again assembled.

Extract of a letter to the Editor of the Baltimore Gazette, from a correspondent, dated

"LIMA, June 23.

"The National Constituent Congress of Peru has wound up its long session, leaving a commission of its members to watch over the government until the contemplated meeting of the first constitutional assembly. The last act of its session was one of prohibition of all articles of American industry. The act will speak for itself. It bears the stamp of that stupid hostility which is the first passion in the breasts of these barbarians towards all civilized nations, their people and their productions. The Lima faction rules the republic, and it is composed of the most ignorant and pusillanimous of all public men in the state."

THE CONGRESS OF PERU,

Considering, that all young States should preserve and maintain the productions which they possess, in preference to all others—Decree:

Art. 1st. That the foreign importations of all those articles which, by the present regulation, pay 90 per cent. duty, shall within ten months for the states of Europe, and eight months for those of America, counting from the date of the promulgation of this law, be entirely prohibited.

Art. 2d. Within the same time and term as the above, will also be prohibited the foreign importation of all kinds of wine, raisins, flour, butter, and esculents of whatever denomination.

Given in the Hall of Congress, Lima, June 11th, 1828, and promulgated on the 13th of the same month.

Articles subject to 90 per cent duty.

Brandy of all kinds.
Soap, Hats of do.
Ready made Clothing, Boots and Shoes.
Powder. Sulphur and Saltpetre.
Sugar, Tobacco, Sweet Oil and Lard.
Tocuyos, or white and brown Cottons.
Coarse Cloths, similar to the Bayetes or Baizes of the country.
Tanned Leather or Skins.
Saddles and all kinds of Saddlery, Horse Shoes.
Wax and Tallow Candles.
Tables, Sofas, Bureaus, Chairs, Coaches, Colezes and Bedsteads.
Sannahs, Baftas, Madapolans, and all other Cotton Goods, which in class or quality are comparable with the Tocuyos of North America.

One half the bounty on the exportation of British Duck is to be taken off in England on the 5th of January next, and the other half on the 5th of January, 1832. [*N. Y. Jour. Com.*

MERINO SHEEP.

A small flock of very superior MERINO and SAXONY-MERINO SHEEP is offered for sale on very moderate terms, consisting of 37 bearing Ewes, 12 Ewe Lambs, with 15 Werders, and 3 superior half Saxony Bucks from the stock of William J. Miller. Application to be made to R. P. L., at the Post Office, Frankford, Pa., near which the flock may be seen.

Frankford, Pa., Aug. 19.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

TOBACCO.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $7.00 *a* 7.75—superfine Howard-st. 5.75 *a* 6.00; city mills, 5.50 *a* 5.75; Susquehanna, 5.50—CORN MEAL, per bbl. 2.50—GRAIN, best red wheat, 1.10 *a* 1.15—best white wheat, 1.20 *a* 1.30—ord'y to good, 1.00 *a* 1.10—CORN .38 *a* .40—RYE .40 *a* .43—OATS, bush. .22 *a* .24—BEANS, 1.00—PEAS, .50 *a* .60—CLOVER SEED, 4.50 *a* 5.00—TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS 1.75 *a* 2.25—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds. 1st proof, 22½ *a* .23—bbls. .25—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Sosquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—BACON, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

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On the Criteria of the Qualities of Horses for various purposes, with explanatory cuts, from Loudon's Encyclopædia of Agriculture, concluded—An Address, delivered before the Agricultural Society of South Carolina, at its anniversary meeting, August 19, 1828, by Elias Horry, concluded—Important Observations on the Preservation of Indian Corn from the Fly or Wevil, in the corn house, by James Carroll—Crops in the South—Second Annual Report of the President and Directors to the Stockholders of the Baltimore and Ohio Rail-Road Company—*Poetry*, Unambitious Love—Hunting—On the Duty and Value of Punctuality—Instinct of Rats—Extraordinary Despatch—Recipes, Cure for the Croup; To make Indelible Ink—Items of News—Prices.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

ANNUAL CATTLE SHOW,

For the exhibition and sale of Improved Domestic Animals, Agricultural Machinery and Implements, and Household Manufactures, &c.—held by the Maryland Agricultural Society for the Western Shore of Maryland, on the 16th inst., agreeably to appointment, at Carroll's Point.

CROPS—AND IMPLEMENTS OF HUSBANDRY.

The Committee on crops and implements of husbandry, respectfully report:

They have to regret the want of competition for crops, notwithstanding the liberal encouragement offered by the society. The only application being for the best acre of potatoes. The committee award to Caleb Whittemore a premium of ten dollars, for having produced on one acre 275 bushels of potatoes—the fact being properly authenticated. They would have awarded this premium to Edw'd Keene, by whose statement it appears upwards of 300 bushels were raised on one acre; but the evidence of the fact not being in accordance with the rules of the society, they were compelled to reject it.

The exhibition of machinery and implements of husbandry was also very limited, which may be attributed to their being no premium offered as an inducement to persons manufacturing them, to bring them from a distance. Of the few exhibited, the committee noticed with satisfaction some wheat fans invented by Messrs. Eastman, and Sinclair & Moore, and ploughs of various patents—among which a plough invented by Stephen McCormick, of Auburn, Fauquier county, Virginia, particularly deserves notice, combining several new and useful inventions.

James Howard,
D. Williamson, Jr.
Nimrod Owings,
Sam'l C. Owings.

HORSES AND MARES.

The Committee appointed to award the premiums appropriated for horses and mares, have awarded as follows:

For the best stallion for quick draft, "Enterprise"—owned by Mr. N. Owings.	$15
For the best stallion for slow draft, "Maryland Grey"—owned by Mr. John Dorsey.	$15

There being no horse, in the opinion of the committee, worthy of a premium as adapted for the saddle, they awarded for the best mares as follows:

For the best thorough bred brood mare, to Mr. C. R. Owings' bay mare "Racket"	$10
For the best mare for quick draft, to Mr. S. C. Owings' grey mare "Pleasure."	10
For the best brood mare for slow draft, to Mr. Pierce's bay mare "Kit."	10

Respectfully,
Jacob G. Davies,
John Ridgely,
Chas S. W. Dorsey,
J. J. McLanahan.

ASSES AND MULES.

The Committee appointed on asses and mules, award the first premium of 0 dollars for the best Jack, to Mr. John Tilghman, of Queen Anne's county, Md. This Jack being a very fine animal, of great bone and the most approved colour, a fine brown, they take great plesure in recommending him to the attention of the Maryland farmers. They regret that neither Jennies or Mules were exhibited for premiums.

Thomas Kell,
Wm. H. Stump.

NEAT CATTLE.

The Committee appoted on Neat Cattle do award the premium of 15 for the best bull over two years old, full blood Durham Short horn, to Lloyd N. Rogers.

The best bull over two years, full blood Devon, to William Patterson, $15

The best bull over two years, of any other breed, to Enoch Clapp, $15

The best bull of any other breed, to H. Thompson, for his bull Bolivar, under two years old, $10

The best milch cow of any breed, to Lloyd N. Rogers, $15

For the second best ditto, for his cow Eliza, to Henry Thompson, $10

For the best heifer of any breed, to Richard Caton, $15

For the second best ditto, to Mr. Hamilton, $10

For the best grass-fed bullock, to Wm. H. De Courcy, $15

Wm. Gibson,
James C. Gittings,
Nich's M. Bosley,
Baker Johnson.

HOGS.

The Committee on hogs having undertaken the duties assigned them, take pleasure in expressing the satisfaction they have had in viewing a boar of Mr. George Cooke's, to whom they award a premium of $10—and the pigs do credit to Mr. Cooke's management. Mr. Underwood's boar they likewise viewed with pleasure, but having obtained distinctions at a former show, they can only report favourably of the sow and pigs.

John Tilghman,
David Ridgely,
Wm. H. Stump,
Wm. F. Pierce.

SHEEP.

The Committee take occasion to say that the Saxon ram exhibited by William Patterson is decidedly superior, on account of the fineness of the wool, and they award him the premium of $10

And for the same consideration they award him the premium for his pair of Saxon ewes, $10

To Col. Thomas Emory, for a Southdown ram, being the only one presented, they award the premium offered for the best ram of that breed, $10

Likewise for the best Dishley ram, regard being had to form and size, $10

To Richard Caton, the premium for the best pair of Dishley ewes, $10

To James Carroll, the premium for the best pair of ewes of any other breed, $10

The committee take occasion to say there were a number of fine sheep presented by others, of different breeds.

Thomas Murphey,
Samuel Brown, Jr.
James Sykes.

DOMESTIC MANUFACTURES.

The Committee on domestic manufactures are pained to notice a decline in these useful fabrics since the last annual exhibition. This interesting branch of domestic industry has always been patronized with great respect by the Agricultural Society of Maryland, and the committee particularly lament a decline in so useful a branch of family employment. The most bountiful provision was made by the Trustees for the successful competitors in this department of domestic industry, and but few appeared to claim the rewards.

To Miss Elizabeth Kennard, of Talbot county, for the best piece of carpeting,	$8
To Mrs. George Cooke, for the best piece of kersey,	5
To Miss Eleanor Bowdle, of Baltimore county, for the best hearth rug,	4
To Mrs. John Clemson, jr. of Frederick county, for the second best ditto,	3
To Mrs. George Cooke, for the best woollen counterpane,	4
To Miss Rebecca Brewer, of Anne Arundel county, for the best pair of knit woollen hose	$2
To Mrs. Ann Norris, of Anne Arundel county, for the best pair of cotton hose,	2
To Mrs. Robertson, (aged 88 years, for the second best ditto,	1
To Mrs. Ann Norris, of Anne Arundel county, for the best pair of thread hose,	2

A piece of domestic flannel, of very superior fabric, was exhibited by Mrs. Eleanor Spencer, of Talbot county, to which a premium would have been awarded, if any premium for such a useful and excellent manufacture had been offered. The committee have never seen an article more worthy of the society's patronage than this specimen of flannel.

The committee also noticed with pleasure the following articles:

One very handsome knotted counterpane, by Mrs. Eleanor Spencer—a piece of very excellent blanketing, offered by Mrs. John Clemson, jr. of Frederick county, and dressed by Mr. Shepherd—a pair of very beautiful crickets or footstools, sent for exhibition by Mrs. J. S. Skinner, of her own manufacture, extremely ornamental and tasty—a specimen of silk, offered by Mrs. Mary Douglass, of Hagerstown, from worms raised by her, accompanied by a very interesting letter from that lady to J. S. Skinner, Esq relative to the silk worm, &c.—a silk fishing line, made by Miss Margaret Dorsey, and the hook manufactured by her father, a very handsome article—specimens of cut glass, of the clearest material and very superbly cut, by Mr. Henry Tingle, from his establishment in Lovely lane, Baltimore, and which does honour to his factory.

H. V. Somerville,
J. J. McLanahan,
Alex'r Fridge,
John Kennard.

FERMENTED LIQUORS.

The Committee on fermented liquors report, that no wine was offered for premium; but a bottle was presented for inspection, from the vineyard of Mr. Hinkle, near to Hanover, in Pennsylvania.

This wine possesses some qualities, which afford a reasonable belief that good wine may be obtained from the grape that produced it. The wine is wanting in richness and delicacy of flavour; but the body of it is good, and the fermentation has been conducted with judgment and accuracy; and in the opinion of your committee, there is little doubt that it will stand the bottle, and improve by age in mellowness and flavour. Your committee hazard an opinion, that the grape was pressed with the stem, or that the pressing was too severe, by which the stems, or the skin of the grape, yielded a sap that deteriorated the wine. Your committee with pleasure report, that the wine under inspection affords great promise that our country will produce excellent wine, so soon as experience shall enable the cultivators to select the grapes best fitted to our soil and climate, and teach the best mode of securing a sufficient and safe fermentation.

Rd. Caton, *chairman.*
Balt., Oct. 18, 1828. Lloyd Rogers.

BUTTER.

The committee appointed to judge of the best sample of butter, have the pleasure to report, that the specimens exhibited were numerous, and generally of good quality, but they award the premium for the *best* to Mrs. D. Murray, of Elkridge, and upon opening the note accompanying the sample, after their unanimous decision, they find it to be the produce of a young Alderney cow.

Only one specimen of preserved Butter was exhibited, and which the Committee do not think deserving of a premium.

Henry Thompson,
Wm. H. Stump,
John P. Gale,
Josias Green.

We, the undersigned, having been appointed to count the ballots, the following gentlemen were found duly elected:

B. W. Hall, *President.*
James Cox, *Treasurer.*
J. S. Skinner, *Corresponding Secretary.*
Henry Thompson, *Recording Secretary.*
Richard Caton,
George Howard,
Jacob Hollingsworth,
Thomas Oliver,
Charles C. Harper,
H. V. Somerville,
Samuel W. Smith, } *Trustees.*
James Swan,
James Carroll, jr.
Charles Carroll, jr.
Dr. Allen Thomas,
George Cooke,
J. B. Morris.

H. V. Somerville,
J. B. Morris.

October 16, 1828.

(From the Winchester Republican.)

SHEEP.

To the Farmers of Virginia.

Having, by a very gradual and attentive system of breeding, acquired a flock of sheep meeting in a great degree my anticipations, and believing them too valuable to pursue the ordinary modes of reducing their number, the subscriber has resolved thus publicly to offer for sale annually a few ewes and rams, provided he can obtain from five to ten dollars for the ewes, and double that sum and upwards for the rams, in proportion to their merit; which course he will pursue, until he shall consider himself perfectly justified in setting aside a flock under a particular appellation, as a full blooded original stock: at which time a moderate and uniform price will best comport with his own convenience, and he hopes the interests of a great community of farmers. At present, only a portion of the male offspring would be offered as intrinsically worth the price which may be put on them. The ewes will, in every probability, be in lamb by his most favourite rams, one of which at the last shearing produced 14 pounds 6 ounces of such fine, long wool, as the subscriber thinks best adapted to the various demands of our domestic manufactures—the rams, a choice of his raising (save a small selection,) for the improvement of his own flock. As there is happily a growing taste and curiosity amongst our farmers, it may not be amiss to state that these sheep are composed of—first, the remnant of an English breed imported before the revolution, (and highly celebrated in their day for their mutton qualities,) crossed by the Arlington long wool, improved by Mr. Custis from the Persian stock of Mount Vernon; at this period 124 sheep averaged 8¼ lbs of wool too long for ordinary purposes, the best sample of which was sent by Mr. Custis of Arlington to Doctor Logan of Philadelphia, measuring 16 inches in length; was next crossed by the large French and small Spanish merino, until too great a sacrifice of quantity was made for fine wool during the well remembered merino mania. Most fortunately some of the progeny of that remarkable sheep exhibited at Friendly Grove, called Frederick Bakewell, (the premium ram,) and weighing more than 200 pounds, were employed to restore the lost mutton and wool. From that time to the present period, an in-and-in system has been strictly pursued: many of the finest ram lambs have been saved every year, in order to afford the best selection, with the view of combining the important properties of quantity and quality of wool, size, and early maturity of mutton.

The ewes he offers for sale are a portion of a flock, the best average of which, in the last three years, has been equal to 8 3-8 lbs; individuals having sheared from 11 to 16½ lbs.; half a dozen rams, averaging 13½ lbs.; ewes of the first shear reaching frequently to 10, 12, and as high as 14½ lbs. As it regards size, or the mutton qualities, at least one dozen wedders and rams have the present year weighed from 150 to 194 lbs., averaging 165 lbs. The fleeces of the first shear rams averaging 12 3-5 lbs.; wedders, 10 1-6; ewes, upwards of 8 lbs; a diminution readily to be accounted for in rather too great a preponderance in favour of the fine wool.—Its length is from 6 to 7 inches; the quality of the greater part of it may be inferred from an extract of a letter annexed, from Mr. Anthony Morris, a gentleman well known for his distinguished attachment to the interests of agriculture, and its future elevation through the medium of appropriate education, and his friend Mr. Smith, of New Jersey. Mr. Morris says, "I have delayed my reply to your last favour, until I could receive from my friend Miles Smith, Esq., of Brunswick, New Jersey, who is one of the most extensive and intelligent practical agriculturists of the middle states, and particularly distinguished among them for his discriminating knowledge in the varieties of value and fineness of their wool, his opinion of the properties and value of the specimen sent me from your flock. He says, 'The sample of wool sent is one of the finest he has ever seen, and particularly so from its great length of staple; combining these two good qualities in the same animal is a great acquisition; the length may be owing to its being the first fleece, (as it truly was,) and perhaps will never be so long again. It would be very desirable to known from your friend's experience, whether the staple of wool from his flock has improved or otherwise in that southern climate, and what time they have been in the state; if fed on the mountain or plain, and also the quality of the soil. We have been offered 30 cents per pound cash for all our wool, say 2000 pounds of full blood; but I think such as your friend's sample would readily command 35 cts., or perhaps more.' "

From an exhibition of a variety of samples in the course of a tour to the eastward last fall, similar opinions were entertained and expressed.

In raising this flock, which but little exceeds one hundred, (the labour and pains of the last twenty years,) the subscriber has been for the better half of the time experimenting, with the view of ascertaining what kind of sheep would best suit his interest in the various aspects presented by the subject; and he believes, from his present experience, that such sheep as possess sufficient size for mutton, and combine the qualities of early maturity, quantity, and quality of fleece, are such as will be most advantageous to him, and consequently to all others having the same demands on so important a material of our domestic manufactures. For several years past he has been endeavouring to bring such sheep to the greatest degree of perfection. How far he has succeeded is left for others to judge; but he is confident in the belief that much is left for him to do, and resolved in the determination to spare no pains or expense in raising them to still higher degrees of improvement; and as a further means of promoting an end so desirable, and affording at the same time a stimulus to general exertion, *a silver cup worth fifty dollars,* is offered to any one who shall produce in the month of May next, a ram and ewe superior to those of the subscriber, (combining the aforementioned quallties;) the sheep to be retained in exchange for the premium.

The expense of improving this flock has not been less considerable than the time. From $30 to $240 has been paid for many rams, and he has never received more for any individual than the lesser sum (thirty) lately, from a neighbour; the first fleece of which ram weighed 15 pounds, and would, in all probability, in England, have commanded his hundreds.

The subscriber would wish it to be distinctly understood, that he does not intend to intimate that these sheep are of such quality as to produce the very finest of wool, or the greatest possible quantity, either the heaviest frame for mutton; it is only in combination they are decidedly his choice. The business of fine wool raising is best promoted by the Saxon full blood merino, or some of the French or Spanish blood. The greatest possible quantity of wool, by a judicious mixture of fine, coarse, long, without special regard to form or breed, but having an eye to size, &c.; for the most superior mutton, sheep possessing moderate size, well made, active in their habits, wool of moderate quality, thin on the back, none on the belly, and not long any where. The nicest and most philosophical attention to the wool on mutton sheep, will promote their good qualities in proportion to the cleanness and sweetness of their exterior—the heavy, gross, mutton sheep, on large square limbs, short legged, short woolled and coarse.

It is thus plainly to be seen that the different kinds of sheep cannot be brought to their greatest perfection unless separately and distinctly bred. A first rate mutton weighs 120, 30, 40 lbs.; 100 lbs. is considered a fair and a full weight, where the wool in quantity and quality forms a large portion of the value of the animal; from 80 to 100 has been the usual weight of the wedders of the flock in question, under the disadvantage of castrating only the most indifferent lambs. When age and favouring circumstances combine, 100 lbs. is attained; 15 lbs. is a reasonable average for their tallow, as they are always fat; as high as 28 and 30 have been obtained of rough fat. Of the large woolled breeds of sheep, from 20 to 30 lbs. of wool have been shorn; the finest merino yields but 2¼ or 3 lbs.; and what will our common country stock produce? Why, 2 or 3 lbs., if the brambles have not torn it from them; and a considerable part of that will fly away in the manufacture of it, from the degeneracy of its fibre.

It has been by some argued that wool is too low in price to license any additional expense in improving it, while others make great efforts to conquer that difficulty by doubling their number of sheep. How very erroneous both are, needs but a little reflection and experience to discover. It is true that economy, and the greatest industry, observation and skill, are absolutely essential to success in the honest pursuit of a living to be deducted from the soil, in the present state of our relations with each other, and with the world. But a small additional capital is as necessary at times to the farmer as to the merchant. Instead of ruining the soil by moltiplying mouths, rather double the fleece, and improve its quality, that its fabrics may last longer, be more comfortable, and afford to the market a greater and better supply. It cannot be too urgently insisted upon, that if skill and judgment, observation and attention, are left out of the question in such matters, so will profit also—degeneracy must continue, and ruin frequently close the scene. A moderate, but improving price for wool, will be the inevitable reward of those who cherish with proper care their flocks.

The subscriber is indebted to some of his nearest neighbours for their testimony in favour of his sheep. He might have multiplied it to any reasonable amount, but prefers that future facts should speak for themselves, especially as he contemplates an endeavour to be useful in the diffusion of information on this and other subjects connected with agriculture, and hopes that a late introduction of the short horn cattle will enable him to reciprocate benefits with a widely extended grazing country. In the mean time his own improved stock will afford a small supply, having calves, as he believes, from three to six months old, weighing from 300 to 600 weight on the foot. An attention to the cultivation of the mixed grasses has much diminished his corn cultivation, and as the advantages of improving cattle, and sheep in particular, becomes more apparent, so in proportion will the corn culture be diminished.

The subscriber sincerely hopes, independent of those selfish or interested views (so apparent in all our actions,) that the above facts and hints may promote a spirit of inquiry and determination; that it may prove in due time one of those natural and rational facilities, under the wise direction of Providence, to the most important change in favour of the renovation of our agriculture: namely, that of substituting, with the voluntary and deliberate consent of those who are interested, *free* for *slave* labour.

RICHARD K. MEADE.

White Post, Frederick co., Va., Sept. 8, 1828.

CERTIFICATES.

The subscriber is enabled, from personal observation and experience, to certify fully and entirely to the correctness of the facts stated by Richard K. Meade, Esq., in the above publication; and he with pleasure avails himself of the opportunity of thus testifying to the remarkable success with which this gentleman's efforts have been crowned, and to the high value and importance of the breed of sheep thus obtained. He is better qualified to do this, from the fact of his having for several years past been in the constant habit of viewing and examining this flock throughout the whole season, and especially as he has during that period attended closely and minutely to Mr. Meade's shearings, taking samples, and frequently weighing individual fleeces; in addition to which, as a member of the committee appointed by the Agricultural Society of Frederick county, to take into view the merits of the different lots of sheep offered for premiums at Winchester, in the fall of 1826, his attention was particularly called to a lot of these sheep to which two premiums were awarded, as combining, in a very high degree, size, beauty of form, and value of fleece as to quantity and quality.

The flock of the subscriber affords a striking illustration of the rapid and manifest benefit to be derived from a cross of this stock; having in many instances shorn from sheep possessing not more than three-fourths of this blood; and without any extraordinary degree of care or quantity of food, from 9 to 12 lbs. of wool.

In reference to size and beauty of form, the general improvement in his flock has been obvious, and some individuals of the flock, he feels confident, would in these respects lose by a comparison with no sheep in our country, the Dishley only excepted.

T. F. NELSON.

Frederick county, Sept. 12, 1828.

I was present at the last shearing of Mr. R. K. Meade's sheep, and was requested by him to pay pecial attention to the weight of sheep and their leeces, length and quality of the woo, crder of the heep and cleanness of the wool. Having occupied part of two days in attending to that duty, and having since examined the above repor, in relation to hat shearing, it gives me pleasure to testify to its orrectness. I consider the wool 'ery fine for its ength, and remarkably clean for unwashed wool; nd having dealt considerably in sheep myself, I eely say I know none worth conparing with his heep for excellent qualities combned.

THOMAS KENNERLY.

Frederick county, Sept. 10, 1828.

I purchased in the month of May last, of Richard . Meade, Esq., a ram lamb of the first shear, eighing 162 lbs. and producing 14 lbs. of fine, long ool, after having been first dvested of the tags. e was shorn in my immediate presence.

JOIN KERFOOT.

Frederick county, Sept. 4, 1828.

BAKEWELL SHEEP—CATTLE, &c.

Recent Sales in the Philadelphia Market, &c.

J. S. Skinner, Esq. *Philadelphia, Oct.* 8, 1828.

Sir,—I have been surprised I have not heard from you before this on the subject of sheep. You will have the goodness to inform your friends, through the medium of your useful paper, that I have always on hand Bakewell sheep for sale, and I might say, with propriety, of the best blood in this country — Reference might be had to the American Farmer, No 3, vol. 8. The price will be regulated agreeably to the quality of the sheep. I have on hand a one year old ram, got by the Imported ram out of a favourite ewe of my old flock of Bakewells, for sale, price 25 dollars, delivered at French Town. Also for sale, my Imported ram I purchased from you, 3 years old, price 50 dollars; three spring ram lambs, two of them out of good ewes of my old flock—the price 25 dollars each; the other out of my favourite Imported ewe, got by Imported ram, 50 dollars. *Superior, own* brother to the ram lamb I got of you; he is now running with fifty ewes, and is certainly in my estimation, and others who are competent judges, the best ram we have ever seen, both for wool and beautiful form, pronounced by a respectable victualler of Philadelphia the fattest sheep he ever saw, previous to letting him go with the ewes.

Can you inform me what has become of my old companions in the sheep business, whom I was formerly so intimate with in your city and state, whose delight used to be when we met, to dwell on the subject of sheep, the best mode of management, &c. I feel at a loss to know what is the matter; I fear they are removed out of their place, given up their attention to the valuable animals. They used to write me once and awhile for a good ram or two; but not a word about it for these three last years, except from two of them; to one I sold one of my old stock of rams; the other gentleman asked my price; I stated it in a letter and referred him to yourself, but I have not heard from him since. For my own part, I can say for twenty-five years which has past I have been successful in my sheep; they have netted me the best profits of any other article I have paid attention to on my farm; they still are eagerly sought after by the butchers; the three last years justifies me in saying so. My two last sales was from 10 dollars to 12 dollars for 40 wethers, last years, 50, including cast off ewes, from 5 dolls. to 6 and 8 dollars per head. This month I expect to sell 50 head at 6 dolls., off grass, part old ewes.

Mr. Exton, East New Jersey, about sixty miles from this place, sold to a butcher of this city, I believe, 50 or 60 in number, off grass, last fall, for 6 dollars per head; and his son informed me a few days ago he expects the same price for about the same number, this present season; these prices with two fleeces of wool from each sheep; I believe they were past two years old when sold. The above prices will satisfy him, or any other sheep man, for paying strict attention to his flock.

He has imported two Bakewell rams from England, arrived about six weeks. They have no doubt cost him a round price. His son informed me the person whom his father purchased from, said they were the first sheep of the breed he ever sold, and he would not have parted with them, if the condition was not to take them out of the kingdom; his practice was not to sell, but to let, from 80 to 200 guineas per season. These sums were obtained by this gentleman last year. Not so in this country. Every farmer has it in his power to purchase, at a moderate price, good sheep of the best blood.

I have a few full blood Devon cattle more than I wish to keep, for sale; beautiful and large size; one of them a three year old bull, very gentle. My experience, although but short in this breed of cattle, has convinced me they are valuable stock, and I have felt surprised that those who keep them for sale do not meet more encouragement. I cannot help thinking the time will come in which they will be more sought after. I wish I could attend your next cattle show with some of my stock; but my divided business between this city and my farm in Delaware, puts it quite out of my power at the present. A line addressed to me in Philadelphia respecting stock, at any time, will be strictly attended to.

Yours, most truly,

JOHN BARNEY.

PROSPECT OF COTTON CROPS.

Mr. Skinner, *Port Gibson, Miss., Sept.* 26, 1828.

Our prospects for a cotton crop are not quite so good as they were two months ago, owing principally to the drought. In the beginning of this month we had a remarkably cool spell of weather, more so probably than was ever known here so early. Fires and blankets, and winter clothes were quite necessary; and the cotton received quite a back set. It is generally believed there was some frost; a thing that never happens here before October. P. H.

HORTICULTURE.

CULTURE OF GRAPE, &c.

Extract to the Editor, dated

Columbia, Pa. October 13th, 1828.

I am endeavouring to concentrate all the *choice* varieties of grape vines, both native and foreign, and raising *new varieties from seed* and I have not the least doubt but what I shall soon have *seeding vines* surpassing the most delicious foreign grapes; I have now one or two varieties from seed which in *my* opinion, as table grapes, rival *many* foreigners, and as to their quality of withstanding uninjured our winter frosts and *summer heats,* they have no equal from France or Germany. As the cultivation of the vine is beginning to attract considerable attention I will contribute a few observations on the subject which I hope may not prove altogether unacceptable.

My belief (though contrary to the general opinion) is that the foreign grapes are mostly injured by the *great heat in summer:* from the cold we can protect them by covering during the continuance of cold weather, but for the *heat* we have no remedy, unless, probably, by planting them on a north or western exposure, though I know not of the experiment having been tried, but from observing in what way *nature* has planted them I believe it would succeed. All the *foreign* grapes that I have had an opportunity of examining, on east and south exposures, are annually destroyed by mildew which I believe is occasioned by the sun shining on them whilst they are wet from *dew,* whereas on a north or west situation they are seldom, if ever, affected by it. From all the observations I have been able to make on uncultivated nature, I have never yet seen a wild vine fully exposed to the influence of a meridian sun, on an elevated southern exposure, but what had its fruit annually dried and burnt up before it came to maturity, while those vines that are fruitful are usually in low wet places, or on the north or west sides of hills *sheltered* from the scorching rays of the sun by the shade of trees, or their own close and thick foliage. Now, to arrive at perfection in almost any pursuit, it is generally agreed, to copy after nature is our surest guide; why then, do we pursue a directly opposite course in the cultivation of the vine?

I will now endeavour to inform you of my success with those seeds, &c. you sent me last spring.

1. Silkworm-eggs. These, I presume, were kept too warm on their passage, as the little insects were nearly all hatched at the time I received them, being in February, it was of course impossible to procure food for them; I however, some time after, received some from Mr. Randal, of Annapolis, with which I was most fortunate, and from the produce

of these I now have several thousand eggs for next season, or for distribution, if any gentlemen wish them.

2. Large Cymblin, or Squash. This has been known by the term *Gashaw* in our neighborhood for several years, as a very fine and productive variety of the squash.

3. Alfalfa, or purple Trefoil, is the *Lucern* so highly spoken of by some, though I believe not suitable to our *present* mode of farming in this part of the country, where grass lands are not permitted to remain longer than three, or at most four years, when they are again subjected to the operations of the plough for a crop of corn, &c.*

4. Quinar, from South America. This I believe to be a *new vegetable*, and regret to say, I did not succeed with it, owing I suppose to the seed not being good. I planted some of the seeds in pots, some in a hot bed, and some in the open ground, several different times, but not a single seed vegetated. I should like to hear if any other person succeeded who received of the seeds.

5. Balsam Apple, from Florida. These succeeded and produced an abundance of fruit.

6. Isabella grape seed. Of this I have some fine plants and shall preserve them carefully until I see the produce.

7 and 8. Wheat and Lettuce, from Mediterranean. The wheat I committed to the earth immediately, and the lettuce I shall reserve for next spring.

Most respectfully, yours, &c. J. B. G.

SCUPPERNON GRAPES—PEARS, &c.

Extract from a letter from E. Smallwood, Esq., of North Carolina, to William Prince, proprietor of the Linnæan botanic garden, relative to the scuppernon grape, &c.

"I send to you some scuppernon vines which I raised from the seed; some will be black and some white grapes. You can tell the white from the black by the runner, or in other words, the quirl which clings to the stake to hold up the vine. The quirl of the black will be of a purple colour; the white will be of the colour of the grape. I send some pear and apple cuttings; the pear is called sugar pear. I have gone through the United States, and I have seen no pear to equal them. Also, apples called Williams', from a man by that name who lived in a very obscure part of this state. He went on board of a vessel from the north to get some necessaries for his family, and the captain gave him an apple, and he planted the seed, all of which was of no account, except one which produced these cuttings; they keep the best of any apple; they are sound when no other apple can be found. I have seen them on the trees when the frost had taken all the leaves off; they will not be good to eat until December; when first pulled they are green and hard; they are one of the best eating apples, and superior to all others for cooking; are not handsome, but of a rusty red and green.—If you want any more of the Scuppernon vines, let me know in time; I can send a large quantity by having some of the arbours cut down and burying the vines; that is the most certain way to get them. You will also receive some cuttings of the Scuppernon. The Muscadel vine you gave me is doing well and is a fine bearer. I have several hundreds of them growing finely. I have six acres in the Scuppernon; they will bear this year. I plant them 30 feet from each other.

"I am sorry that I did not send you some cuttings of our native bunch grape which is found in our woods; they improve in flavour and size by cultivation. I discover that the sun is apt to destroy the grapes from the imported vines by scorching them.

"I have appropriated six acres to a garden, in which I wish to cultivate vegetables and fruits. If you have any thing from Europe that is novel to us, that you think would be profitable for me to cultivate, let me know. When I was with you I bought from you all kinds of fruit trees; they all are doing well."

SPANISH GRAPE SEED.

Copy of a letter from J. Cable, Esq., of Upper Louisiana, to Wm. Prince, proprietor of the Linnæan botanic garden.

Sir,—I take the liberty to enclose you a few of the Spanish grape seed, which I procured last June on what is called the north-west pass of the Rio Grand, or Rio del Nort, in Texas, about five hundred miles north west of St. Anthony, and about one thousand from this place. These grapes grow in abundance on the Rio Grand, and tolerably large; are sweet and fine flavoured; if cultivated, no doubt they will grow much larger.

I have saved some to plant here; the balance I forward to you. J. C.

INTERNAL IMPROVEMENT.

CANALS.

The subjoined table gives an exhibit of the length of Canals finished, or in progress in the United States at this epoch, Aug. 1828.

	Length in miles.	
Middlesex Canal, Middlesex County, Massachusetts, ...		29
Blackstone Canal, in progress, Massachusetts and Rhode Island, . .	45	74
Farmington Canal, Connecticut, in progress, ...	17	91
Hudson and Erie Canal, completed,	363	454
Hudson and Champlain Canal, do.	63	517
Oswego Canal, . . do.	38	555
Ithaca and Owega Rail-road, proposed,		
Seneca Canal, completed, . .	20	575
Delaware and Hudson Canal, New-York, in progress, . . .	65	630
Moris Canal, in progress, New-Jersey,	86	716
Chesapeake and Delaware Canal, nearly completed, ...	14	720
Port Deposit Canal, . . .	10	730
Chesapeake and Ohio Canal, commenced 4th July, 1828, . . .	367	1097
Ohio State Canal, in progress, .	306	1403
Ohio Miami Canal, in progress, .	265	1668
Lehigh Canal, unfinished, . .	46	1714
Little Schuylkill Canal, incomplete, .	25	1739
Conestoga Canal, from Lancaster to the mouth of Conestoga, . . .	18	1757
Schuylkill Canal, completed, . .	108	1865
Union Canal, completed, . .	79	1944
Pennsylvania Canal, in progress, .	296	2240
Baltimore and Ohio Rail-road,		
Ohio and Erie Canal, in progress, .	154	2394
Louisville Canal, in progress, . .	3	2397
Canal Carondelet, at New-Orleans,	2	2399
Dismal Swamp Canal, Virginia and North Carolina, ...	23	2422
Santee navigation, ...	150	2572
Savannah and Altamaha navigation,	66	2638

Of the preceding, nearly one third is in actual operation, but the list by no means includes all the canals already finished, in the United States. On Merrimac river, in the State of New Hampshire, above the Middlesex Canal, there has been very extensive side-cuts completed, so as to pass the numerous shoals and rapids. On Connecticut river, similar works have been performed. At York Haven, in Pennsylvania, a canal passes the falls in Susquehanna. At Richmond, in Virginia, the lower falls of James river is also passed by a canal. Along the Roanoke, side-cuts have been effected; and in numerous other places, some designs have been carried into more or less maturity to meliorate the natural channels of water by artificial improvement. It is geographical knowledge which must enable us to appreciate the value and distinctly understand the relative importance of works of internal improvement. I shall therefore proceed to a brief sketch of the topography of the river basins of the United States, advancing from north-east to south-west. This will admit a particular location of each of the canals and railways, either executed or designed, and will reduce the view to regular order; but before entering on the topographical survey some meteorological prefatory remarks are indispensable. Discussing canal projects, the effect of relative height or aerial temperature, has been singularly overlooked, though so very necessary to a due estimate of probable utility. Indeed, in all our internal improvements, whether roads or canals, our minds are directed for comparative data towards the British islands, though in point of mean annual temperature, or in respect to the influence of winter cold or summer heat on water courses, no two regions could be chosen presenting more contrasted phenomena. Independent of some partial elevations, the surface of the British islands does not rise to four hundred and fifty feet above the Atlantic level, and from the influence of western winds, breathing from an extensive ocean, rain falls on that Archipelago, when on similar latitudes in North America the earth is covered with snow and the rivers with ice. In summer again, the rivers of the British islands are kept full by a constant supply of moisture under an oblique sun, whilst in the United States the water is rapidly and permanently evaporated by intense and continued heat.

On comparing the mean temperature of the two opposing sides of the Atlantic ocean, it is discovered that on similar latitudes the thermometer stands higher on the eastern than on the western continent from eight to fifteen degrees, but it by no means follows that the respective climates differ in a similar manner. On the eastern continent, summer becomes not simply warmer but also drier, advancing from north to south, and though the mean temperature is a fraction higher in the south of Europe and northern Africa, than in the United States, on the same parallel of latitude, the summers, and in fact all seasons are otherwise much alike on both continents. Therefore, though Maine, New-Hampshire and Vermont have a mean temperature like that of Great Britain and Denmark, the seasons of the former assimilate, particularly in summer, to those of France, Italy, and Southern Germany. Whoever reads the Abbe Rozier's *Cours d'Agriculture*, will be convinced that the climate along the Mediterranean has a very strong resemblance to that of the southern states of the United States.

The meteorology of the latter section of the earth, again, presents some peculiar phenomena. Though the mean of the entire year has been found nearly equal on the Atlantic coast and in the basin of the Mississippi, yet the winters are much more severe to the westward. According to Lovell's Meteorological Register, formed from observations made at the different military posts, the following extremes were discovered:

In 1822,	winter was at the west	6.26°	colder than at the east.
1823,	do.	3.12°	do.
1824,	do.	4.55°	do.
1825,	do.	3.67°	do.
	Mean,	4.4075°	

Thus we learn that the winters of the great central valley are nearly four degrees and a half more intense than those of the Atlantic coast, and if, therefore, Isothermal lines were drawn from the Atlantic border to the sources of the Missouri, without any allowance for difference of level, the curve of equal heat would inflect southward, and in some seasons, no doubt, to the enormous amount of nine or ten degrees. but in every winter from three or four to six or seven degrees. It is from the preceding cause that the rivers of the Mississippi basin are annually frozen so much farther south, than are those on the Atlantic slope.

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* It might, however, be cultivated in lots set apart for that purpose, and it is incredible how early and how much it affords for soiling horses, milch cows, &c. It is truly astonishing that every farmer does not cultivate it in this way. Ed. Am. Far.

In this estimate I have not brought into view the effect of difference of level, since, though not noticed by Dr. Lovell, relative height no doubt produced its part of the extremes stated; but the real cause of the phenomena is the prevalence of western winds, sweeping from an immense elevated and frozen interior. An idea once prevailed, and is not yet altogether exploded, that clearing land meliorated the climate of a country; and farther that the winters of central North America were comparatively milder than on the Atlantic coast. It may well excite surprise that such opinions could ever be entertained for a moment; but now they are happily dissipated by actual experiment. The winters of the central parts of North America are found much more severe than those of the Atlantic coast, and that severity found increasing as advance is made towards interminable open plains cleared by the hand of nature.

On the other hand, the summers of the central basin are also more intense than those of the Atlantic coast. In Dr. Lovell's estimates the extremes of summer were:

In 1822,	higher in the west	6.67°	than in the east.
1823,	do.	6 05°	do.
1824,	do.	4.58°	do.
1825,	do.	7.42°	do.

Mean, 6.18°

These elements drawn from actual observation decides a problem I was once very much ridiculed for stating. "That was, that the seasons were much more uniform on the Atlantic coast than on the Mississippi basin." This is now most completely confirmed, and to an extent I did not myself expect. If an Isothermal line was again drawn from the summer extremes, it would inflect in a contrary direction from that of winter, and the two lines at their western divergence would be separated 10.5875°. If for instance we sought a point or region of the Mississippi, of equal winter temperature with Baltimore, it would be discovered near N. lat. 35, in central Arkanzas, and an Isothermal line drawn between the extremes would range nearly along the main body of the Appalachian system of mountains. On the contrary, if a summer curve was traced, it would pass from Baltimore, over the central parts of the state of Ohio, and reach the Mississippi about Prairie du Chien, and the Missouri, below the Mandan villages.

Every thing else being supposed equal, the excessive frosts of winter and droughts of summer, the latter even more particularly than the former, must give a preference to roads over canals: since it must be evident, that the very same causes which deteriorate or interrupt the uses of the former, put the latter mode of conveyance in the best state. A canal, if either frozen, deprived of water, or broken at any point, its benefits cease for the moment; the interruptions of a road are avoidable at small comparative inconvenience. W. D.

A seventh call of 15*l.* per share has just been made on the Liverpool and Manchester Rail-road shareholders, which has been promptly answered. Such has been the increased confidence in the ultimate success of this great undertaking, that shares are now selling at a premium of 30*l.* 10s., and very few in the market. [*Eng. Pa.*

LADIES' DEPARTMENT.

An Affecting Case of Suicide.

The following melancholy instance of self-destruction occurred on Sunday week. A Mr. Sale procured a bed at the White Hart, Milbank, Westminster, and on Monday morning he was called by the landlord, but no reply being obtained, suspicion arose, and the door of the room was forced, when the poor man was found lying in the bed quite dead. On the dressing table was found a paper with powder in it, and a glass that had contained gin and water. From his pockets were taken some pawnbrokers' tickets, a new half-inch cord, two phials that had contained laudanum, and the following pathetic letter addressed to his wife:

"My poor Ann,—I can never hope to be forgiven by you, or that you will remember me in any other light than one that has brought poverty and distress on you and the poor dear children. You have deserved a better fate than what you have had with me—you have borne our miseries with patience and resignation, and I hope the Almighty God will raise you up a friend in your extremity. The distress I leave you in is, indeed, great; but what can I do? All our friends are tired out, and your family will not look at me for what I have brought you to—and the poor dear girls, what will become of them! left without a father and protector, in a wide wicked world! Poor Jane will not forget me! [alluding to his daughter]—and the little Mary Ann [another daughter] will ask "where is poor father gone?"—[Some of the jurors were powerfully affected when the coroner arrived at this part.] Mr. and Mrs. Leathley, I am afraid, will not look on you, but hope what I have done may not entirely deprive you of their friendship. Would to God I had died before; I should then have lain in the same grave with the poor dear departed boy, [alluding to his son lately dead.] I have never ceased to think of him, poor fellow, since; my misconduct was the means of his death: I never could forgive myself; it has always preyed upon my mind, so that I could not settle to any thing. Oh! God, I have taken the dreadful, the fatal draught; and may the Almighty, in his infinite mercy, forgive me, and receive my soul! May he protect you, and my poor dear children through life, and grant that some benevolent friend may assist you in your affliction. I begin to feel the poison operate. May the Lord receive my soul!"

It appeared from the evidence given before the coroner, that the deceased had been a surveyor, but so much reduced, in circumstances, that his wife and children had undergone more privations than it is possible to conceive. On the day before the suicide, he went home, but finding the family without the means of sustaining life, he left the house and never returned more. A verdict of insanity was returned, and the coroner and jury entered into a subscription on behalf of the poor widow and her two children. [*English paper.*

(Extract from an English Paper.)

Our correspondent's censure of the mean, unmanly practice of making a butt of old maids is very well merited. The habit is an unequivocal sign of a vulgar, ill-regulated mind, and is most offensive and revolting to every person of feeling and delicacy.—Many of those females who lead single lives have been influenced in their choice by motives equally creditable to their judgment and moral character.—A woman may be amiable, accomplished, and admirably suited by nature and education to fulfil the duties of a wife and mother, and yet she may never have been seriously addressed by the man for whom she could feel that attachment and respect, without which marriage is a state of unsupportable thraldom. It is so much the fashion to look mainly to wealth in the choice of a wife, that very many virtuous and most excellent women are neglected, by men who are not aware that an amiable disposition and good principles are the best dowry that a woman can confer upon her husband. Many of the unmarried females, who are the object of the dull and unmanly jests of such writers as those to whom we have alluded, might, if married, have proved invaluable treasures to their husbands: we say invaluable treasures, because an amiable and accomplished wife is incomparably the greatest blessing that can fall to the lot of man; such a wife, in reality, as is pictured in fancy by the admirable anthor of the Economy of Life. Such prizes in the lottery of life may not be common, but we happen to know that there are such things, and that they are above all price.

The following table, constructed by Dr. Granville from an examination of eight hundred and seventy-six cases in lying-in hospitals, &c. is the first ever submitted to females to exhibit their chances of marriage at various ages.

Years of age.			Years of age.			Years of age.		
3	at	13	85	at	22	7	at	31
11	at	14	59	at	23	5	at	32
16	at	15	53	at	24	7	at	33
43	at	16	36	at	25	5	at	34
45	at	17	24	at	26	2	at	35
67	at	18	28	at	27	0	at	36
115	at	19	22	at	28	2	at	37
118	at	20	17	at	29	0	at	38
86	at	21	9	at	30	1	at	39

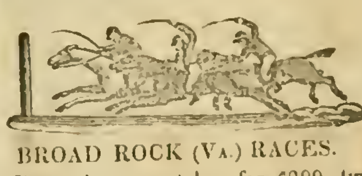
It is a curious fact, that if a woman marries at twenty-one or twenty-two, and is placed under precisely similar circumstances for the following fifteen years, as women at fourteen, fifteen and nineteen, marrying at that age, may be supposed to be under, she will produce the same number of children as the latter would, though the party marry eight years later.

A woman out of temper, is like a gale in the Bay of Biscay--dangeruus by adverse currents.

That which is bought cheap, is generally the dearest.

It is with men as with barrels—the emptiest make the most sound.

SPORTING OLIO.



BROAD ROCK (Va.) RACES.

First Day—A sweepstakes for $200, two mile heats, half forfeit. For this race, four colts by Sir Charles were entered, which was won with considerable ease by Mr. Wynne's s. f. at two heats.—Time, 1st heat, 3m. 56s.; 2d heat, 3m. 56s.

Second Day--The Proprietor's Purse, $200, two mile heats, was contended for by Mr. Harrison's Susan Robinson, Mr. Botts' Sparrowhawk, Dr. Bolling's Brunette, Mr. Johnson's Snow Storm, Mr. Moody's Palemon, and Mr. Graves' Marcella, and won at three heats by Snow Storm, Brunette taking the first heat. Time, 1st heat, 3m. 50s.; 2d heat, 3m. 51s.; 3d heat, 3m. 53s.

Third Day.—The Jockey Club Purse, $500, was contended for by Dr. Bolling's Ariel, Mr. Johnson's Trumpator, Mr. Botts' Lafayette, Mr. Graves' Hippona, and Mr. Moody's Pioneer, which was won by Ariel at 4 heats, Lafayette and Trumpator taking the 1st and 3d heats, and Ariel the 2d and 4th.—The last heat was run io 5m. 47s.

WASHINGTON JOCKEY CLUB RACES.

First Day.—$400, four mile heats. The purse was won by Mr. Potter's bay horse Bachelor, beating with apparent ease his competitors, Mr. Powder's horse Florival, and Mr. Lloyd's horse Cornwallis.

Second Day.—$200, two mile heats. The purse was taken by Mr. Dixon's brown horse Industry, in two heats, beating Mr. Potter's Marshal Ney, and distancing Mr. Gibb's Caradock.

Third Day.—$300, three mile heats. The purse was won by Mr. Dixon's brown horse Industry, beating Mr. Potter's Mulatto Mary, and Governor Sprigg's Forester.

NORFOLK JOCKEY CLUB RACES.

First Day—2 mile heats.

Mr. Garrison's b. m. Polly Hopkins,	1	2
Mr. Johnson's blk. h. Star,	2	2
Mr. Harrison's b. h. Corporal Trim,	3	dist.

Time, 1st heat, 3m. 48s.; 2d do. 3m. 42s.

Second Day—3 mile heats.

Dr. Bolling's s. m. Sally Hope,	1	1
Mr. Ingram's b. m. Reputation,	2	2

Time, 1st heat, 5m. 54s.; 2d do. 5m, 57.

Third Day—4 mile heats.

Dr. Bolling's g. m. Ariel,	1	1
Mr. Garrison's b. h. Ivanhoe,	2	drawn
Mr. Johnson's b. h. Trumpator,	3	3

Time, 1st heat, 8m. 20s., 2d do. 7m. 43s.

Fourth Day—2 mile heats.

Mr. Garrison's b. m. Polly Hopkins,	1	1
Dr. Bolling's b. m. Brunette,	2	2
Dr. Minge's b. h. Fid,	3	3

Time, 1st heat, 3m. 43s.; 2d do. 3m. 48s.

Fifth Day—mile heats.

Mr. Garrison's b. h. Ivanhoe,	1	1	1
Dr. Minge's s. m. Sally Drake,	2	2	2

Time, 1st heat, 1m. 48s.; 2d do. 1m. 50s.; 3d do. 1m. 54.

. ELKTON RACES.

Will be run over the Elkton Course on the *4th day of November next*—First day, two miles and repeat, for a purse of 100 dollars.

Second day, three miles and repeat, for a purse of 200 dollars. Four horses to enter each day.

The third day, one mile, three best out of five, for a purse of 50 dollars, each horse putting in Twenty dollars, and the winning horse to be entitled to the whole sum, carrying one hundred pounds each.

To be governed by the rules of the Maryland Association. R. C. LUSBY.

Elkton, Oct. 18.

The lines to a Robin, that flew in at the window of Mr. Grahame, will be read with no regretted loss of time.

"From snowy Plains, and icy Sprays,
From moonless Nights, and sunless days,
Welcome, *poor Bird!* I'll cherish thee;
I love thee, for thou *trustest* me.
Thou need'st not dread a *Captive's* doom;
No! freely flutter round my room;
Perch on my Lute's remaining string,
And sweetly of the Summer sing.
That note, that Summer note I know;
It wakes at once and soothes my wo,
I see the woods, I see the stream,
I see—ah, still prolong the dream;
Still with thy song, those scenes renew,
Tho' through my tears, they reach my view.
Thus heedless of the raging blast,
Thou'lt dwell with *me*, till Winter's past;
And when the *Primrose* tells, 'tis Spring,
And when the *Thrush* begins to sing,
Soon as I hear the woodland song,
I'll set *thee free*, to join the throng!"

MISCELLANEOUS.

PATENT CARRIAGE WHEEL.

Patent granted to David Bentley, *of Eccles, Lancashire, (Eng) for an Improved Carriage Wheel.*

This carriage wheel is framed in a peculiar manner, with a view to make it altogether stronger, and to remedy the defects of the common nave, that is much weakened by the mortices made in it for the spokes, which come so close together, as to leave a much smaller portion of wood, to connect the parts at each side of them, than is generally supposed.

The metal box of the wheel in Mr. Bentley's mode of construction is larger than commonly used, and has as many semi-cylindrical grooves, or shallow channels, made parallel to the axle at the surfaces of its two extremities, as there are spokes in the wheel, one half of the number being made at one end, and the other half at the other end, and so arranged, that the divisions between the semi-cylindrieal grooves at one end of the box, shall be opposite to the central bottom lines of the similar grooves at its other extremity; the box has, besides, four pieces about an inch high and broad, and about half the length of the box, projecting from its middle at right angles to each other, whose use is to keep the nave from turning on the box.

The wooden nave being firmly driven on the box so prepared, has excavations made at right angles to the axles at each of its extremities, opposite to the semi-cylindrical grooves; each of which excavations is fitted for the reception of the butt of a spoke, in such a manner, that the inner ends of the spokes may come closely in contact with the grooves of the metal box, while their outer extremities shall terminate in the plane of the rim of the wheel, close to the iron tire; and as this plane passes through the centre of the nave, every pair of the spokes will, when viewed across the wheel, appear to form two sides of a triangle, of which the nave is the base, and will, in fact, give the wheel all the strength sideways which triangolar framing is ever found to produce, wherever it is introduced. A circular metal plate is then placed, vertically, on the axle at each end of the nave, having cavities made at their centres to admit of this arrangement, and being perforated opposite to each division between the spokes in two places, for the transmission of iron screw bolts; which, passing across between them through the nave, are drawn tight by nuts, so as to press the plates against the ends of the nave, and firmly secure the inner extremities of the spokes, against the sides of which they are also pressed by the action of the nuts on the screw bolts.

The iron tire, or rim of the wheel, is one continued hoop, and is made hollow at its inner side next the felloes, and rounded at its external surface, so as to present a nearly semi-circular section, if it were cut across in any part; the felloes are fitted so as to lie close to the internal cavity of this hoop, and when the several parts of the wheel are to be put together, after being fitted to each other, the outer extremities of the spokes are first put into the mortices made for them in the felloes, then these latter are arranged in their places, within the cavity of the hoop; after which, or at the same time, the inner ends of the spokes are placed in the cavities prepared for them, in the opposite side of the nave; and, lastly, the round end plates are fastened to each side of the nave by the bolts; the nuts of which in being turned up tight, besides keeping the inner ends of the spokes in their places, as mentioned, will, according to the patentee, have the farther effect of pressing their outer extremities against the hoop, by causing the inner ends of those at the opposite sides of the nave to come closer together All the nuts are placed at the carriage side of the nave, and, to prevent their getting loose by the motion of the wheel when in use, they are arranged so as to lie in two concentric circles a small distance asunder, and after they are screwed up tight, a ring that is made of the exact size of the space between the two circles of nuts, is fastened into it by wood screws, so that none of them can be turned again in any material degree until this ring be removed.

As the felloes are at first merely placed loose within the cavity of the hoop, as mentioned, some farther fastening and bracing will, of course, become necessary for them, and the method which the patentee takes for this purpose, is to place small wedges in two places at opposite sides of the rim, between their ends, pointing towards the rim, and a small screw bolt being put through each of these wedges in the same direction, and also passing through holes made for them in the hoop, are drawn tightly against this latter, by nuts at its outside, by which means the wedges are made to enter farther between the ends of the felloes, and thereby to press them against each other, so as to produce the intended effect above mentioned.

The wheel is represented in the drawing that accompanies the specification, as having nine spokes, and nine pairs of bolts across the nave, in the intervals between their inner extremities.

The Dog-rib Indians, who are derived from the same stock with the Chipewyans, say that, according to the traditions of their fathers, the first man was named Chapewee. He found the world well stocked with food, and he created children, to whom he gave two kinds of fruit, the black and the white, but forbade them to eat the black. Having thus issued his commands for the guidance of his family, he took leave of them for a time, and made a long excursion for the purpose of conducting the sun to the world. During this, his first absence, his children were obedient and ate only the white fruit, but they consumed it all: the consequence was, that when he a second time absented himself to bring the moon, and they longed for fruit, they forgot the orders of their father, and ate of the black, which was the only kind remaining. He was much displeased on his return, and told them that in future the earth would produce bad fruits, and that they would be tormented by sickness and death—penalties which have attached to his descendants to the present day. Chapewee himself lived so long that his throat was worn out, and he could no longer enjoy life; but he was unable to die, until, at his own request, one of his people drove a beaver-tooth into his head. [*Captain Franklin's Journey.*

A Family of Great Men.—In Denton, near Manchester, resides a family of the name of Howard, hatters by trade, of whom the father and two sons (the father and brothers of Mr. Samuel Howard of this town,) together weigh 1030 lbs. The mother is only five feet two inches in height, and weighs not more than 140 lbs. The names, ages, height, and weight of the father and two sons are as follows:

	Age.	*Height.*	*Weight.*
John Howard,	69	6 ft. 3 in.	342 lbs.
Joseph Howard,	50	5 9½	358
Thomas Howard,	48	6 0	330
Together,	167	18 0½	1030

RECIPES.

TO AVOID FREEZING.

When travellers are benighted in snow, they might frequently be saved by covering themselves in it, except a small aperture for air; in which situation the lives of hares, sheep and other animals are so often preserved. The snow, both in respect to its component parts, and to the air in its pores, is a bad conductor of heat, and will therefore keep out the external cold, and as the water, when part of it dissolves, is attracted into the pores of the remainder of it, the situation of an animal beneath it is perfectly dry; and if he is in contact with the earth he is in a degree of heat between 48, the medium heat of the earth, and 32, the freezing point; that is 40 degrees of heat, in which a man thus covered will be as warm as in bed.

[*Zoonoomia*, v. ii. p. 309.

TO AVOID CATCHING COLD.

Whencoming out of very cold air in which you have long been, avoid heating drinks, or a close room, or a large fire, or an unusual portion of bedclothes. What is termed *catching cold* ought rather to be termed *catching a heat*, for which the cold only predisposes the body. The old saying, "feed a cold, &c." has been a very mischievous one. The pleurisy commences its attack, not while the body is exposed to cold, but after the application of an undue degree of the stimulus of heat and food, and commonly when in bed.

THE FARMER.

Baltimore, Friday, October 24, 1828.

The Late Cattle Show.—As it will perhaps be expected that we should describe the late annual exhibition of the Maryland Agricultural Society, we proceed to give a short sketch of it, as it must have appeared to the general spectator; with a few reflections that occurred to ourselves as a member of an Institution in which we have no particular interest, and about which we have never felt any, except as we have viewed it, as an association highly calculated to advance the prosperity and the character of the *Agricultural* community, if properly understood and duly supported by those who ought to understand and support it—we mean the practical farmers and planters of the country—*those who make their livelihood by the culture of the soil.*

The pens appropriated to the exhibition of neat cattle have never been better filled than at the late show. The North Devons, descended chiefly from the stock sent to this country by that opulent and liberal English commoner, Mr Cocke, were the most numerous, and their condition, in most cases, evinced the good treatment, and in that, the true economy of their owners. There were also to be seen short horns of the pure blood supporting their established and high character; but owing, probably, to their yet high price, the full bloods of that race were, as at our last exhibition, exhibited only by one gentleman—indeed it is remarkable, and may be so mentioned *en passant*, that the full bloods of the imported breeds, Devon and Short Horns, are exhibited now by the same proprietors and by those alone who have possessed and exhibited them for several years past Yet not a few of their progeny have been up to this time sold, at and above $100 per head, and we happen to know that the produce of one of the Devon cows belonging to the Secretary of the Society have been sold for upwards of $500.

Though we are sorry to mention it, the fact was remarkable, that of the neat cattle very few were sent to the ground from more than two or three miles from the city. To this we may except the cases of the cattle sent by *two of the Trustees*, much to their credit in every view; and a fine grass fed bullock by Mr. De Courcy sent for premium and for sale, from Queen Anne's county.

We looked in vain in the pen which was wont to be occupied by beautiful animals from the pet farm of an old and spirited friend in the District, who is not apt to flag when prompted by his never failing sense of benevolence and public duty. The absence of his stock was particularly regarded as a bad "sign of the times," and of the waning zeal even of amateurs. If in fact, the cattle sent by the Trustees and Secretary (not the corresponding secretary) of the Society had been withdrawn, there would have been, excepting the venerable Mr. Patterson's, scarcely a sufficient number left on the ground to propagate their race. When therefore we say that the show, as respects neat cattle was equal to what it has been heretofore, it is well to understand that the public is indebted for the display in that department almost exclusively to those to whom the management of the Society is confided. Of these gentlemen it is but justice to say, that they have endeavoured for more than five years with a persevering assiduity which does them honor, to induce the Farmers of the neighborhood and the State to appreciate and countenance the objects for which the society was established.—They have continued to hold regular meetings of their board, subjects of primary importance have been discussed—schemes of premiums believed to be best adapted to elicit the skill and good management of the husbandman have been framed with deliberation and care—they have invited suggestions from any respectable quarter—they have collected funds to purchase premiums, for the most part from liberal men who have no direct concern in agriculture; receiving comparatively but little support, and sometimes enduring the mortification of ungracious refusal from those for whose immediate benefit alone the Society was incorporated; in short they have freely given their time and their contributions to keep up the Society and to realize its contemplated advantages, but their efforts have been illy sustained, and their good intentions have even been returned, in some cases, by vulgar jealousy and narrow minded imputations. They still, however, hope that the Society may be made to answer its original ends, and we shall humbly endeavour to suggest some of the means by which they may yet be accomplished. We shall resume the subject in our next. It is one of the advantages of these exhibitions that they throw open the whole field of agriculture for investigation and remark; and the observations which we shall make, as leisure offers, will not be the less useful should they be general rather than confined to the details of the late exhibition. For the present we will only add, not by way of reproach, but of matter of fact for the farmers of Baltimore and Anne Arundel, that at a *County* cattle show a few days since in Worcester county, (Mass.) there were *three hundred and thirty six animals exhibited*—of these 229 were "neat stock." An address was delivered, and the *Governor of the State*, a man of high talents and most commendable zeal, and withal a practical farmer, made a statement of the concerns of this *county* society, which consists of 800 members, with a fund of 5000 dollars.

☞ The Late Cattle Show.—[A French gentleman, travelling in America, being in Baltimore, attended the Cattle Show and Exhibition of household manufactures, held by the Maryland Agricultural Society on the 16th instant; and having dedicated to the subject some reflections in the journal of his travels, has favoured us with the following extract. We give it in the language of the writer, as an exercise for the children of such of our patrons as may be learning the French language; which, by the bye, all ought to do who possess the opportunity. Yielding to the force of the maxim that we are never too old to learn, we are ourselves employing some leisure moments in the study of the *universal tongue*]

Extrait de mon Journal, 16, 8^{bre}, 1828.

Aujourd'hui s'est tenue la foire annuelle de la Société d'Agriculture du Maryland. Jai suivi la foule qui se portait au *Point de Carroll.* Dans un parc assez vaste et très-propre à sa destination on voyait quantité de bestiaux de toute espèce, des instrumens d'agriculture, des produits territoriaux et des objets d'industrie. Il m'a été impossible à cause de l'heure avancée, de faire un examen particulier de tout ce que renfermait l'enclos. J'y ai cependant remarqué avec plaisir des bœufs et des taureaux d'une grande taille et d'une force prodigieuse, un baudet de la plus belle apparence, des moutons *porteurs* d'une laine très fine et très-épaisse, et un de ces animaux que Buffon a si bien dépeints en disant qu'ils mènent une vie de gentilhomme: celui-ci était d'une grosseur et d'une forme extraordinaire; son corps était ramassé, ses jambes très-courtes, ses soies très-douces au toucher, et toute fois sa tête avait quelque chose de sauvage; elle ressemblait exactement à la hure d'un sanglier des Ardennes. Mais mon attention s'est principalement portée sur les chevaux de race qui occupaient dans l'enceinte la place la plus distinguée. Un d'eux se faisait remarquer par la vivacité de son regard, sa belle encolure, ses membres à la fois souples et nerveux, sa queue longue et bien garnie, ses mouvemens nobles et gracieux. C'était le cheval du naturaliste Français ou plutôt celui dont Job dit: *Ubi audierit buccinam, dicit: Vah; procul odoratur bellum.*

J'ai ensuite porté mes pas vers le lieu ou étaient exposés quelques produits manufacturiels et objets d'industrie. J'y ai vu des cristaux et des vases d'argent d'un bon goût et parfaitement ciselés; des étoffes d'un beau tissu; un tapis de pied très-élégant; des tabourets de mérinos brodé de soie et de velours, d'un travail achevé; des bas de lin, de laine et de coton finement et régulièrement tricotés: on m'a assuré qu'ils étaient l'ouvrage d'une dame de quatre-vingt-huit ans. Il parait que cette personne si digne de respect et d'admiration a mis à profit les leçons du livre de la sagesse en imitant la femme que Salomon représente comme se levant de grand matin, préparant ses lins et ses fuseaux et s'occupant à confectionner elle même les habillemens nécessaires à sa famille. J'ai vu deux des expositions du Louvre, c. à. d. tout ce que l'industrie peut offrir de plus brillant, de plus rare et de plus précieux, les tapisseries des Gobelins, les porcelaines de Sèvres, les riches étoffes de Lyon, les beaux draps de Louviers et de Sédan, les fins tissus de Tarare, les dentelles de Valenciennes, les soyeux cachemires de M. Ternaux, et les admirables tableaux de David, de Vernet, de Girodet, de Gros, de Guérin et de tant d'autres peintres fameux. Et bien. je dois le dire, tout cet ensemble des produits de l'industrie nationale, dont s'enorgueillit justement la France, n'ont pas fait sur moi une impression si vive que ces modestes paires de bas envoyées par une femme nonagénaire à l'exposition qui m'occupe aujourd'hui. C'est là le denier de la veuve. Puisse le ciel la conserver encore longtems! puisse-t-elle être exempte des chagrins et des maux qui accompagnent ordinairement la vieillesse, et travailler de nouveau pour l'exhibition des produits de l'industrie du Maryland! Puisse-t-elle trouver de nombreux imitateurs!

Mon admiration pour cette femme vénérable m'a un peu éloigné de mon sujet. Ce n'est cependant pas une digression inutile: du moins elle me fait plaisir et même quelque bien. Je reviens donc à l'exposition. On m'y a fait voir des charrues qui joignent la solidité à l'élégance et á la légèreté, des vans á mécanique dont la forme élégante m'était inconnue. J'y ai encore admiré quelques échantillons de beurre. Cet objet dont la consommation est partout si considérable n'est confectionné nulle part mieux que dans le Maryland. Celui qui m'a eté montré et dont on m'a fait manger flattait également l'œil et le goût. Il n'était sous aucun rapport inférieur aux Beurres de la Bretagne et des Basses Alpes, qui jouissent d'une si grande réputation. Puisque j'en suis aux comestibles, je ne puis m'empêcher de faire mention du diner qui a eu lieu sous un hangard au milieu du parc. Quoique la table fut abondamment et élégamment servie, je ne parle point de ce repas pour faire l'éloge des mets qui y ont figuré, mais bien pour dire la cordialité, l'union et la franche gaîté qui regnaient entre les convives, au nombre de soixante presque tous membres de la Société d'Agriculture. C'était une vraie réunion de famille. Cette Sociét pourrait servir de modèle à toutes les associations. Tout le monde y est libre et indépendant, et toute fois, chacun se croit obligé de travailler de tout son pouvoir et de tous ses moyens à l'accroissement de la prospérité de son pays. Je dois, cependant, consigner ici une remarque. Pourquoi la Société d'Agriculture du Maryland n'a-t-elle pas plus souvent des réunions semblables à celles de ce jour? Pourquoi n'établirait-elle pas plusieurs foires dans l'année, à l'exemple des départemens de la France? Des Etats voisins du Maryland on s'y rendrait en foule, on y conduirait des chevaux, des mulets, des bêtes à cornes et à laine: il y aurait chez les propriétaires une noble émulation; par ce moyen les races s'amélioreraient, et les produits territoriaux prenant un développement plus considérable, on verrait s'accroître sensiblement la richesse du sol.

C'est à regret que j'ai quitté le *point de Carroll:* j'en suis parti au moment de la distribution des primes. En rentrant à Baltimore je tournais souvent les yeux vers le lieu ou je venais d'éprouver quelques jouissances, et je me disais en moi-même: pendant qu'aux extrémités de l'Europe, deux grands peuples combattent pour l'occupation militaire d'une province, peut-être même d'une forteresse; pendant que les autres nations de cette partie du monde font des armemens considérables de terre et de mer, les unes pour prendre part, les autres pour assister dans une attitude respectable à cette lutte sanglante, le peuple des Etats-Unis d'Amérique, sans s'inquiéter de la politique ténébreuse des souverains, ne songe qu'à son commerce, à son industrie, à ses travaux agricoles, parceque c'est là cequi fait sa force, sa gloire, sa richesse, sa paix et son bonheur. Mais qu'on ne s'y trompe pas; ces hommes, tout occupés qu'ils sont de leur négoce, de leurs manufactures, de la culture de leurs terres, se leveraient au premier cri de la patrie menacée. Leurs vaisseaux, leurs ateliers, leurs magasins, leurs charrues sont ornés ou ombragés des lauriers de la victoire. Ces nouveaux *Cincinnatus* auraient bientôt quitté leurs champs, leurs travaux et leurs affaires domestiques pour aller encore combattre les ennemis de l'indépendance et de la prospérité de leur pays, et Jackson serait là pour les commander. L. L. P.

MARYLAND AGRICULTURAL SOCIETY.

Baltimore, 16th Oct. 1828.

At a meeting of the Trustees of the Maryland Agricultural Society, held this evening at the residence of Mr. George Howard, were present :—B. W. Hall, *President* ; Jas. Carroll, Jr., John B. Morris, Richard Caton, Jacob Hollingsworth, Dr. Allen Thomas, Thomas Oliver, Samuel W. Smith, James Swan, George Cooke, Henry V. Somerville, George Howard.

It was unanimously *Resolved,* That the Maryland Agricultural Society will continue their Exhibitions of Domestic Animals and Household Manufactures for the next five years.

It was also *Resolved,* That a Committee of five be appointed by the President to report at the next meeting of the Trustees a system of proceedings for the Society, for the ensuing year. The President nominated Mr. Caton, Mr. Somerville, Mr. James Carroll, Jr., Mr. Morris, Mr. Skinner.

An interesting letter was received from Mr. Skinner, which was referred to the Committee appointed to report a system of proceedings for the Society for the ensuing year.

On motion it was agreed, That the Board of Trustees hold their next session at the residence of Col. N. M. Bosley, of Baltimore County, on this day two weeks, in conformity with his polite invitation.

On motion it was further agreed, That the Board of Trustees will hold their regular monthly meeting at the residence of Charles Carroll, Jr. Esq. Homewood, Baltimore county, on Thursday, 13th of November.

☞THE CANTON RACES.—The first day gave very fine sport--four colts started for the purse of $200, which was taken by Mohican. The contest was very severe and close between him and Fauquier, a very fine sorrel colt, (by Contention,) who lost the first heat by about *a neck;* and proved his *game blood* by running close for the second in 3 minutes 58 seconds.

Three horses ran, yesterday, the races of three miles and repeat. It was won by Mulatto Mary, (by Sir Archie,) in two heats, beating Sir Albert, (by Rattler,) Florival, (by Tuckahoe,) and Spottee. After the first heat, Spottee was withdrawn, and Florival was distanced. The four mile race, to-morrow, will be well contested, and will be run, it is supposed, in less than eight minutes.

In such fine colts as were on the ground on Wednesday, we see the effect of our association, and the promise of yet higher performance, and still better sport in future.

We shall in the next number give the official account of each day's running; but we cannot let the occasion pass now without an intimation to the lovers and breeders of fine horses—even saddle horses, that they ought to come forward at once, and give efficient support to the association. It is alike useful to the city and the country; but how is it possible to have fine horses for light harness or the road, without some efficient means of *testing* the speed and bottom of such as are alone worthy and capable of propagating horses of the highest order of figure and action? Suppose the turf to be abandoned, where will you who are rearing horses find a market for your stock? and if you withhold even the small yearly pittance of ten dollars, how can the trials of speed and bottom be made?

☞ We do not give party news and there are no events foreign, or domestic, of a nature calculated materially to effect the concerns of agriculture since our last. We hope that the rage of party is now nearly exhausted by its own violence, and that those who could not have time to come, nor one dollar to contribute, to the agricultural exhibition, having spent months and having "treated" away all their surplus bullocks, and sheep, and hogs, and whiskey, and bread, (not to clothe the naked nor feed the hungry;) will now begin to look if their time had not been better employed in putting their farms and their homesteads in better order

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STOCK CATTLE FOR SALE.

About 200 head of Stock Cattle and Working Oxen, three and four years old, will be for sale this day, at the Hand Tavern in Paca street Inquire of

Oct. 24. SAMUEL PATTERSON.

BURLINGTON NURSERY OF FRUIT AND FOREST TREES.

The undersigned informs the public, that in consequence of the death of his father, Daniel Smith, (the former proprietor,) the Establishment will be conducted in future by himself; and trusts, from his long experience in the business, he shall be able to give general satisfaction. He has on hand, fit for transplanting, a general assortment of thrifty, handsome, and well grown Trees, together with a variety of Shrubs, Vines, &c. &c. catalogues of which may be procured, gratis, by application to either of his Agents, viz; Benjamin Smith, No. 277 Walnut street, and Daniel B. Smith, druggist, corner of Arch and Sixth streets, Philadelphia; Henry Hinsdail, No. 75 Vesey street, New York; George Drinker, merchant, Alexandria, D. C.; Robert J. Smith, bookseller, Richmond, Virginia; B. Anus, Mobile, Alabama; Daniel O. Comstock, Lockport, New York; Jacob & Joseph Sinton, Wilkesbarre, Pennsylvania; or at the establishment. CALEB R. SMITH.

Burlington, 10th mo., 2d, 1829.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c.; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36 Pratt-st., Baltimore.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

TOBACCO.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. Inspections for the week, 274 hhds. Maryland, 21 hhds. Ohio.

FLOUR—white wheat family, $7.00 *a* 7.75—superfine Howard-st. 6.12½ *a* 6.25; city mills, 5.75 *a* 6.00; Susquehanna, none—CORN MEAL, per bbl. 2.75—GRAIN, best red wheat, 1.18 *a* 1.20—best white wheat, 1.25 *a* 1.35—ord'y to good, 1.10 *a* 1.18--CORN .40 *a* .43—RYE .43 *a* .45—OATS, .22 *a* .24—BEANS, .75 *a* 1.00—PEAS, .50 *a* .60—CLOVER SEED, 5.00 *a* 5.50—TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS 2.00 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .10—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds. 1st proof, .23 *a* .24—bbls. .25—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—BACON, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

The grass fed Beef that took the prize cup, raised by Mr. Wm. H. De Courcey, was sold at $5.00 per cwt. and weighed 730 lbs.

MARKETING—Apples, per bush. .50 *a* .75; Pears, per peck, .25 *a* .37; Butter, per lb. .25 *a* 31¼; Eggs, dozen, .10; Potatoes, Irish, bush. .50; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, lb. .8 *a* .10; green Corn, dozen, .25; Onions, bush. .50; Cucumbers, pickling, per hundred, .25; Beets, bush. .50; Turnips, bush. .50; Partridges, .8 each; prime Beef on the hoof, 5.50 *a* 6.00.

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AGRICULTURE.

(From Loudon's Encyclopedia of Agriculture.)

OF BREEDING HORSES.

(Continued from p. 242.)

The general principles of breeding we have already laid down at length, [see Am. Far. No. 3, vol. ix.] and have here to notice what are considered the best practices in the choice of stallions and mares, and in the treatment of the latter during pregnancy. Unfortunately, however, much less attention has been paid to breeding horses, than to breeding cattle or sheep; though, as Brown has observed, a pound of horse flesh is worth two of that of any other stock; and it costs just as much to breed a bad horse as a good one. Every one, an eminent writer observes, exercises some degree of judgment in regard to the stallion; but there are few breeders, comparatively, who hesitate to employ very ill-formed and worthless mares, and often solely because they are unfit for any thing else than bringing a foal. All the best writers on agriculture reprobate this absord and unprofitable practice. "In the midland counties of England, the breeding of cart horses is attended to with the same assiduity as that which has of late years been bestowed on cattle and sheep; while the breeding of saddle horses, hunters, and coach horses is almost entirely neglected; or left almost wholly to chance, even in Yorkshire—I mean as to females. A breeder here would not give five guineas for the best brood mare in the kingdom, unless she could draw or carry him occasionally to market; nor a guinea extraordinary for one which could do both. He would sooner breed from a rip, which he happens to have upon his premises, though not worth a month's keep.—But how absord! The price of the leap, the keep of the mare, and the care and keep of her progeny, from the time they drop to the time of sale, are the same, whether they be sold from ten to fifteen, or from forty to fifty pounds each."—(*Marshal's Economy of Yorkshire*, vol. ii. p. 166.)

In those districts where the breeding of horses is carried on upon a large scale and a regular plan, the rearing of stallions forms in some degree a separate branch; and is confined, as in the case of bulls and rams, to a few eminent breeders. These stallions, which are shown at the different towns in the vicinity, sometimes sent to be exhibited at a considerable distance, are let out for the whole season, or sold to stallion men, or kept by the breeder himself, for covering such mares as may be offered, at a certain price per head; and this varies according to the estimation in which the horse is held, and sometimes according as the mare has more or less of what is called blood. For farm mares, the charge for covering by a stallion of the same kind is commonly about one guinea, with half-a-crown to the groom; and it is a common practice in the north, to agree for a lower rate if the mare does not prove with foal; sometimes nothing more is paid in that case than the allowance to the groom.

In choosing the parents, or stallion and mare, regard must be had to the kind of stock desired to be bred. Whatever may be the particular purpose of the breed, a stallion ought first to possess all the general properties of a good horse, and next the characteristic criteria of the desired stock. The produce, whether a male or female, much more frequently acquires and retains the form, make, marks and disposition of the sire than the dam. On this account, stallions with the least appearance of disease, blemish, or bodily defect of any kind, where there is the slightest probability of its being transmitted to the offspring, should be rejected as improper. And it is even considered by some, necessary to descend to the minutiæ of symmetry in the head, neck, shoulder, forehead, ribs, back, loins, joints, and pasterns, attending even to a strict uniformity to the form, make and texture of the hoofs: and, were it possible, even to ascertain the temper and disposition of both sire and dam, in order to avoid the procreation of vices or imperfections.—But provided either parents be free from hereditary infirmities, disorders which arise from accident are of no consequence.

The general properties required in a breeding mare, are a good shape, a gentle disposition, a large carcass conformably to her height, and belly well let down; she must be perfectly free from all sorts of blemishes and defects. The size, frame, bone, strength, and blood, will of course be regulated by the purposes of the breeder.

The mare which is intended to supply draft colts should, according to the author of the *Synopsis of Husbandry*, be large limbed, close jointed, short decked, wide chested, home ribbed, with a capacious body; her eyes good, and her nostrils large and open; in disposition she ought to be gentle and tractable; of a constitution healthy and vigorous, free from any blemishes either hereditary or acquired. The horse should be bold and spirited, well made, and of a kindly disposition; his constitution should be strong, his temper good, and, in short, neither in mind or body ought he to be contaminated with vices or disease of any kind; since on the good qualities and strength of constitution in the sire and the dam depends, in a great measure, the future welfare of the colt.

The age at which a stallion and mare should be allowed to copulate is not determined by uniform practice; and is made to depend, in some measure, on the degree of maturity, which, in animals of the same species, is more or less early, according to breed and feeding. Yet it would seem, in general, to be an improper practice to allow animals of any kind to propagate, while they are themselves in a raw unformed state, and require all the nutriment which their food affords, for raising them to the ordinary size of the variety to which they belong. It may, therefore, be seldom advisable to employ the stallion till he is about four years old, or the mare till she is a year older; and if the stallion be five also, it is better, and still more so if he be six or seven. But the greater number of mares left for breeding are not very young; being in many cases not allowed to bring foals till they are in the decline of life, or otherwise unable to bear their full share in rural labour.

Three months before a stallion is to cover a mare, he should be fed with sound oats, peas, or beans, or with coarse bread and a little hay, but a good quantity of wheat straw; he should be watered regularly, and have long continued walking exercise every day, but he should not be overheated. If he be not prepared and put in condition, the colts will be likely to be weakly, and the horse himself will become injured, begetting humours, or becoming broken winded. If he be put to too many mares, he will not last long; his main and tail will begin to fall off through weakness, and it will be difficult to get up his flesh again by the next year. The number of mares should be proportioned to his strength, and twelve, fifteen, or at the most twenty are as many as a horse will well serve for in a season.

The usual season when a mare takes the horse is from the beginning of April to the beginning of July.—The month of June is considered the best season in this country; although from the middle to the end of May is more approved of on the Continent, particularly in Normandy, where the farmers devote much of their attention to this branch of husbandry; and in which, especially in regard to useful farm horses, they have succeeded, perhaps, beyond those in any other part of Europe. This difference, as to the time when a mare should be allowed to take the horse, in the different countries, is easily reconcileable: a mare goes eleven months and a few days with foal; and the great object with all farmers, where practicable, is to have her covered at such a period as to insure abundance of grass, and the return of warm and comfortable weather at the period of foaling. An early colt is always to be preferred to one that falls late in the season. It is generally understood, and is an opinion that is believed to be well founded, that a mare may be covered on the ninth day after she has foaled, with a greater degree of success than at any other period. This practice is, of course, often followed; but in such cases the mare ought, Donaldson thinks, to be fed in an extraordinary manner, otherwise it is impossible she can do justice to her present and future foal. But modern farmers would probably, he says, come nearer their purpose, were they to follow the example of the Romans, and content themselves with one foal in the two years.

At the season of parturition, there should be a suitable supply of food for the mother and young. The time of covering mares ought, therefore, to be partly regulated by a due regard to this circumstance, and may be earlier in the south than in the north, where grass, the most desirable food both for the dam and foal, does not come so early by a month or six weeks. In Scotland, it is not advantageous to have mares to drop their foals sooner than the middle of April; and as the period of gestation is about eleven months, they are usually covered in May, or early in June. But if mares are intended to bring a foal every year, they should be covered from the ninth to the eleventh day after foaling, whatever may be the time; and the horse should be brought to them again nine or eighteen days afterwards.

In breeding horses on a large scale, it is easy to contrive so that all the foals may be brought forth at a time when there is plenty of grass. About the end of May the mares are to be put into an enclosure capable of feeding them as long as the stallion is to be with them, or that they are in season. In this enclosure all the mares are to be put together, as well those which are barren as others. The stallion's hind shoes are to be taken off, but the fore shoes should be left, or tips put on to preserve his feet; then lead him forth, and let him cover a mare twice in hand, to render him more tame and gentle. After this take off the bridle and turn him loose among the rest, where he will become familiar with them, and not one of them will be horsed but when they are in season. There should be a little lodge built up in some part of the enclosure, and peas, beans, oats, bread, and other good food, put into the manger in it, that the horse may retire into it in the scorching heats, and eat what he likes best. He must be thus entertained during the whole time he is with the mares, which is to be about six or seven weeks. Mares that are very fat and gross do not hold well; but those which are moderately fat conceive with the greatest success and ease.

To bring a mare in season, it is a common thing to give her a quart of hemp seed, or twice that quantity, night and morning, for eight days before she is brought to the horse. If she refuse it alone, it may be mixed with beans or oats, and will go down; and if the stallion eat of it also, it will force him also; but it must be remembered that these provocatives are unnatural, and often defeat their own purposes. They are therefore seldom now resorted to among intelligent breeders. Still more improper is it to attempt an early horsing, by injecting stimulating fluids up the vagina, as is sometimes done; for when it succeeds, the future progeny seldom answers the expectation.

The treatment of a pregnant mare is in general little different from that of any other horse. Mares of draft are worked in summer as usual, and more moderately in the ensuing winter, till near the time of foaling; when, if the season be somewhat advanced, even though the pasture be not fully sufficient for their maintenance, they should be turned out to some grass field near the homestead, and receive what additional supply of food may be necessary under sheds adjoining. It is both inconvenient and dangerous to confine a mare about to foal, in a common stable, and still more so to leave her loose in a close stable among other horses; and confinement is not much less objectionable after dropping her foal.

Breeding mares are usually worked through the greatest part of the year, laying them aside only for a week or two before foaling, and during the summer season, when giving suck to the young foal.—In this way, Brown observes, the strength and vigor of the mother is not only weakened, but the size and power of the foal stand a great chance of being diminished, by the exertions of the mother when kept at work. Under these impressions, we are led to consider the working of breeding mares as an unprofitable practice. Were they suffered to remain at ease, to roam upon coarse pastures, where sheds were erected in which they might find shelter during inclement weather, we are almost certain that their progeny would enter upon action with increased abilities. The expense of a breeding mare kept in this way would not be great, whilst the advantages would be innumerable. In Yorkshire, and in those midland counties, where the breeding and rearing of horses is better understood than in any other part of the island, they are often worked till the very time of foaling. Great care, however, is necessary in working and managing a mare heavy with foal: an over-heat, too severe exercise, a fright, or a sudden and violent jerk, are very apt to cause an untimely birth, whereby the foal is lost, and the life of the mare very much endangered.

In the mountains of Wales, and in the highlands of Scotland, the breeding mares are never worked during the summer. They are driven to the hills and mountains at the close of the barley-seed season, where they remain till the inclemency of the weather forces them to return for shelter. But their scanty subsistence, the labour they are subjected to in procuring their food, and the moistness and coldness of the climate in the latter part of the season, render both themselves and their progeny of but little value or importance.

Breeding farms, consisting chiefly of pasture land unfit for feeding, are the situations where breeding is generally carried on. Arable farmers may breed occasionally; but the inconvenience of wanting any part of their working stock at the time of foaling, operates almost as a prohibition to the breeding of horses. The greater number of horses are bred in situations where a small portion of arable land is attached to farms chiefly occupied with cattle or sheep; or where the farms are so small as not to afford full and constant employment to the number of horses that must, nevertheless, be kept for the labour of particular seasons.

(From the Franklin Journal.)

AMERICAN PATENTS.

For a Thrashing machine—Matthew Barney, Nantucket, Massachusetts, August 5, 1828.

This machine is in form, somewhat like the common horse gin. There is an upright shaft with a bar projecting out, to which the horse that turns it is attached. Three arms, eighteen feet long, and fourteen inches wide, are passed through mortices, so as to form six radii from the centre of the shaft: these are connected together by six pieces of plank, each passing from the lower edge of one arm, to the upper edge of the next arm, and, consequently, forming six inclined planes. Eight flails, or threshers, eleven feet long, work side by side, upon one common pin; their short ends, three feet in length, pass under the wheel, and are tripped by it as it passes round; the whole making 48 strokes in each revolution.

The grain is placed upon a table standing under the outer ends of the threshers; this table traverses backwards and forwards, by means of a windlass. The patentee says, "by placing flax or hemp on said table, I believe it will break it equal, if not better, than any other way."

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For an Improvement in the Machine for Reaping and Thrashing Grain—Sam'l Lane, Hallowell, Maine, August 8, 1828.

This patent is for improvements upon machinery formerly patented. The combination of reaping and thrashing appears rather incongruous; but the inventor has contrived, with great ingenuity, to apply a large portion of the machine for reaping, to the purpose of threshing, so as to include the whole in one patent. He has, also, a roller, and other appendages, moved by the same power, for the purpose of shelling corn. No clear idea of the machine can be given, without numerous and complex drawings, to which the specification refers throughout.

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Specification of a patent obtained for a newly invented, or discovered mode or art, for the care and rearage of honey Bees, being a mode by which the honey may be taken from the hive, and a new swarm separated from an old one, without injury to either. By Francis Kelsey, Lockport, Niagara county, N. York, August 26, 1828.

First method of separating.—For the purpose of separating a new swarm of bees from an old one, when sufficiently numerous: 1st. Raise the hive a little, and blow into the hive a small quantity of smoke, (tobacco smoke being preferable,) which renders the bees docile and harmless, so that they may be managed with perfect safety. 2nd. Remove the hive from the flooring, or other place on which it stands; turn it bottom upwards upon the ground; place over the hive a sheet, or other cloth, and a sufficient thickness of cloths to render the hive dark; a slight hammering or thumping is then to be made upon the ends of the sticks which run through the hive, which will start the bees from the centre of the hive; the hammering is then to be continued upon and about the hive, near the ground. The bees will, by this means, be driven to the top, and attach themselves to the sheet; the sheet is then to be raised from the centre of the hive; the sheet must be raised from the hive slowly and gradually, and as fast only as the bees will follow it up, the hammering upon the hive to be continued. The bees in ten or fifteen minutes will nearly all be attached to the sheet, when it is to be removed entirely from the hive, and spread upon the ground; one end of the sheet is to be raised upon a block, or other substance, about one foot high. 3d. Place an empty hive upon the raised part of the sheet, on the block; place a few bees near the empty hive; they will run into the hive, and their noise will attract the others. They then are to be allowed to run into the empty hive until a sufficient portion of them have taken possession of the new hive, and until the queen bee is discovered, if practicable. The bees are to be made to pass into the new hive slowly, by removing the hive a proper distance from them, which affords a better opportunity of discovering the queen bee; they may also be made to go slowly by partly covering them with a cloth. The queen bee may be known by the darkness of her colour, and the brisk movements of the other bees about her, and the slowness of her movements.—4th. If too great a proportion of the bees should have passed into the new hive, the queen is to be taken and safely kept, until the swarm can be separated and properly apportioned, when the queen bee is to be returned to the new hive. 5th. The remainder of the bees are to be returned to the old hive, where they will provide themselves with another queen bee. 6th. After the swarms are properly apportioned, the hives are to be placed upon their stand, where both swarms will commence the labours of the season.

Second method of separating.—The hives are to be made of a size, and of wide boards, and about twelve inches square; two sticks are to be placed each way through the centre. Seats are to be put under and near the top board, within half an inch of each other. Some time before the hive shall be filled by a swarm of bees, another hive of the same size is to be placed under it, without a top board, but with seats. The comb will be fastened to the seats. When the lower hive is full, they are to be separated; when the under hive is to have a top board attached to it by cleats; the cleats to run one and a half inches above the side boards, the better to accommodate another hive. This process may be continued from time to time, as may be deemed necessary.

The first of the above methods is preferable.—The honey may be taken from the hives by either of the above modes; either by removing a part of the honey, and dividing the bees, as above described; or, by placing all the bees in the new hive, and removing all the honey. **Francis Kelsey.**

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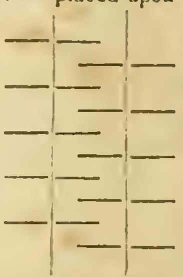
For a Churn for churning milk and cream—Joseph Hathaway, Canandaigua, Ontario county, New York, August 22, 1828.

There is, we believe, a real novelty in this churn, notwithstanding the great number of machines for the same purpose which have preceded it. The body of the churn is a barrel, which is placed upon one end; within this barrel, there are two sets of dashers, which are made to revolve in opposite directions, and work between each other in the manner represented in the margin; there are two small whorls on the upper ends of the shafts of the dashers; there are also two larger whorls, which are turned by a crank, the bands from which pass over the smaller whorls, and turn them in opposite directions. The manner of fixing the frame, shafts, whorls, and bands, needs no description.



HORTICULTURE.

KITCHEN GARDEN—NOVEMBER.

The only articles to be sowed this month, are a few early peas, and some small sallading, and that only where required to be had in continuance.—Planting is requisite principally only to finish what was omitted last month, and for some early beans; and in hot-beds, asparagus, mint, &c. Digging and dunging the ground must be attended to for the benefit of future crops.

Aromatic plants in beds and borders, should now, if before omitted; have the last thorough cleaning from weeds and litter, and the beds dressed to remain in decent order for the winter.

Cabbage plants, if not planted last month for the early crops next spring and summer must be planted now. They must be of the early kinds, and planted in rows, one, two, or three feet distance.

Earth up the different crops of celery when dry; and let those of full growth be earthed almost to the top. Finish planting celery for the late spring crop in shallow trenches.

Dig vacant ground one or two spades deep, and if dunged, dig it a spade deep, laying the ground in rough ridges to improve by the weather, till wanted for sowing and planting with future crops.

Dig up some roots of horse-radish to preserve in sand, that it may be ready for use when that in the ground is frozen up. Do the like by Jerusalem artichokes, which are now in their full perfection.

Sow more early hotspur peas, or for the first crop, and if some are sown twice this month, there will be a better chance of success in their succeeding each other; each sowing to be on a south border; a single drill may be close to the wall, &c. others in cross rows a yard asunder.

Sow some early short-topped radishes on a south border; cover it with straw two inches thick till they come up, afterwards on nights, and frost, to have the chance of drawing a few early. Sow likewise small sallading, as cresses, mustard, and rape, under glasses, or in a hot-bed.

Finish destroying weeds, in all parts, by hand and hoe; beds of small plants, as onions, &c. carefully hand-weed; in other compartments eradicate them by hoe in dry days, and rake or fork off the large weeds after howing, or let them be beat about and loosened effectually so as not to grow again.

(From the New York Farmer.)

GRAPE VINES.

Communication from William Wilson, Esq. of Clermont, New York, on the Culture of the Grape, addressed to the New York Horticultural Society, March, 1828.

You noticed a few grapes which I sent last summer to my friend, Mr. Peter Hattack. They were not intended for exhibition, or, perhaps, better bunches might have been sent. But as they met your approbation, the mode of raising them may not be unacceptable.

I have cultivated grapes for more than twenty years, and, for the last ten years, with success. The soil in which they grew is light and gravelly loam, the ground perfectly level, the vines were raised from cuttings, and planted in the place they were intended to be continued, and where they now are. I have two rows of about twenty-five vines each, one on the north side of the garden, exposed to the south, and protected by a high board fence, the other row in the middle and most exposed situation, with no shelter whatever. For the first six or seven years, they were cultivated in the usual way, cut down to three or four feet, and supported by stacks and laths. Their growth was rapid, and required a good deal of trimming. They bore fruit; but, in two years out of three, they were blasted and mildewed—good for nothing; all we got was trouble and vexation. I had resolved to abandon them. About this time I observed in the woods some very fine looking wild grapes, the vines running up high trees, and most of the fruit at or near the top. On examining, many were found in the same situation. From this, I took the hint of raising the cultivated grape higher from the ground.

At the time of trimming, I left the vines their whole length, ten or twelve feet or more: cutting away every side shoot, and leaving the vines as clear of shoots, or spurs, or heads, as possible. The spring following, by every vine was fixed a strong stake, at least ten feet high, with most of the limbs untouched, so that they had the appearance of large bushes, or well-grown sapplings. These vines were twisted around them to the top, and, when necessary, were tied with bass. By the middle of June, the stakes were entirely covered by the new shoots of the vine, and with plenty of fruit, which was full ripe in September, and not one bunch blasted or mildewed. There was not one cluster within three or four feet of the ground. Since that time, I have continued the same practice, and have now vines twenty or thirty feet long; some of which run up the fruit trees adjoining, the other being carried eight or ten feet, and then stretched horizontally. It is no unpleasant thing to see a cherry tree on one hand, a pear tree on the other, and a peach tree not far off, all ornamented with clusters of grapes. Yet, such is the case, and has been for years past. Several strangers, both citizens and Europeans, curious in such things, have called to examine for themselves, and have generally allowed it to be the most successful cultivation they had seen.

To the members of the Horticultural Society, who it is probable, are mostly practical men, I cannot write in their technical language: it is, therefore, hoped they will excuse the inaccuracies that may occur. In as few words as possible, the whole management of the year is as follows, and it matters not what period we begin. The fruit begins to ripen early in September, and continues till the frosts in October. As soon as the grapes are all gathered, that is about the 15th October, the stakes are taken and thrown aside for firewood. The vine is then stretched out its whole length, and trimmed as clean as possible, in which state it is left lying on the ground for two or three weeks; about the last of November they are laid on the surface at full length, and fastened down with pins, and covered lightly with earth, which is done by digging a shallow ditch on each side, and throwing up the ground to the middle, which forms a ridge over the vines, and covers them about ten or twelve inches; no straw, manure, or any other covering but the earth; in this state they lie all winter. In April, as soon as the weather will permit, they are uncovered and left on the ground for ten or twelve days, or more; the stakes are now, about the first of May, fixed in their places, and the vines replaced as before.—They require no further trouble, unless some that may be blown down are to be put up again. The borders are now well dressed by digging and raking, but no manure, nor has any been put on for ten years or more; they are also kept perfectly clean through the summer, by frequent hoeing and raking; no vegetables are allowed to grow on the borders at any time.

This mode of raising grapes differs from the ordinary, in these particulars:

1st. Trimming or pruning—this is usually done in February or March. Here, we never cut a vine later than November. Were this done in the spring, they would either bleed to death, or be so much weakened as to bear no fruit. In general we are too sparing of the knife, leaving too many eyes or buds, by which you get too much wood and too little fruit; and there is a mistake, which all writers that I have seen have fallen into, that "vines bear their fruit on the wood that was produced the preceding year." This is not the case: for the fruit is invariably on the wood of the present year.

2d. The next difference is, laying down and covering the vines all winter. In our northern climate this is absolutely necessary; it may not be so further south, yet it is worth a trial with a few vines. Prune in October, lay them down and cover in November or December, and take them up in March. One season will test the utility or futility of the practice.

3d. Another difference is, leaving the vine its full length, and training it as high as possible. This I have never seen, except in my own garden; but it is the practice in some parts of Italy, where the vines run over the poplar and elm trees.

4th. Most people plant their vines in sheltered and warm places; this is following the English mode, where the climate requires it. Here, my vines that are most exposed bear equally, if not better, than others.

5th. No manure has been used for many years. Its use gives wood, not fruit.

The greater part of the grapes are the sweet water; these are the best bearers, and pleasantest for table. The milder grape answers well for a variety, and is a good bearer. I have tried the red and black Hamburg, but they do not succeed so well. I am now trying to raise the Madeira grape, having received a few cuttings, which came from the island last spring, all of which are growing, and shall have a fair trial.

The borders on which the grapes are cultivated are six feet wide, and the vines in the centre.

Your humble servant,
WILLIAM WILSON.

Clermont, New York.

HORTICULTURAL SOCIETY.

At the meeting of the Horticultural Society of Pennsylvania, on Tuesday evening last, the members were highly gratified with a fine display of autumnal flowers. Among the most striking of those from the gardens of the Messrs. Landreths, were Dahlias, from Mexico, of almost every shade, from a pure white with yellow centre, to a brilliant purple; a beautiful species of Eupatorium; several varieties of Golden Rod, (solidago;) a rich species of American strawberry tree, (Euonymous,) scarlet sage, (salvia splendens,) &c.

From the same establishment were produced several new and beautiful varieties of seedling roses, tea roses, amaryllis from Mexico, golden trumpet honeysuckle, (Caprifolium fraseri,) with other flowers which attracted attention. Among those not already mentioned, was a flowering branch of the Franklinia, (Gordonia pubescens.) This elegant tree was brought from Florida by the late Mr. John Bartram, and may well be ranked among the most agreeable ornaments of our gardens and lawns; it is at present flowering in the Messrs. Landreths' garden, on Federal street; and has been constantly in bloom for more than three months past. A variety of other flowers were reported to be now in bloom, among which were splendid Dahlias, Campanula pyramidalis, &c. at the gardens of A. Parker, Prime street, and D. Maupay, on the Germantown road.

[In publishing the above, we take pleasure in acknowledging the politeness experienced at Messrs. Landreth's establishment; the gratification we derived from viewing its arrangements and contents, ornamental and useful; and the conviction impressed upon our minds by all that we have seen and known, that the proprietors deserve the confidence of those whose convenience may lead them to deal with them.]

INTERNAL IMPROVEMENT.

ITHACA AND OWEGO RAIL-ROAD.

[It is with no ordinary degree of interest that we approach this department of our paper. It was only in our No. of the 17th inst. that we laid before the public that gratifying document, the second annual report of the president and directors of the Baltimore and Ohio Rail-road.

It is now seen how prosperously that great work is advancing, and we may say of it, as may be said of the New York canals, that it will operate as a stimulus to the conception and execution of similar works. That such a spirit is up may be seen by the document we now place before our readers.]

Report of the survey of the route of the Ithaca and Owego Rail-road—by W. H. Swift, *U. States' engineer.*

Ithaca, N. Y. *31st July,* 1828.

Col. Charles Gratiot, *Chief Engineer,*

Sir, In obedience to the orders of the engineer department of 22d April, I have the honour to submit the following report in relation to a communication between Cayuga lake and the Susquehannah river, by means of a rail-way, together with a map and profiles exhibiting the routes of the experimental surveys, made in reference to the proposed connexion.

In an examination of the country lying between Ithaca and Owego, (the two points to be connected,) two routes are presented for consideration; the first by the valley of Six Mile creek, Beaver Meadow creek, one of its branches, and the east branch of Cattatunck creek, a tributary of the Susquehannah river. The second by the valley of the inlet of the lake and the west branch of the Cattatunck creek, through the town of Spencer. In addition to a brief statement of the general features of the district through which this communication is to be made, it will be necessary to exhibit a more particular account of each route, in order that the relative advantages may be shown, and a comparison drawn between them.

The high land which separate the waters of the Susquehannah from those which flow towards Cayuga lake, follows the general course of the main range of the Allegany mountains, viz. from N. E. to S. W., and although these ridges decline sensibly after crossing the elevated ground which divides the waters of the Delaware, from those of the Susquehannah, still the ranges N. W. of the latter river, attain to a considerable length. The main ridge which separates Cayuga lake from the Susquehannah, is broken in several places by the upper branches of the Cattatunck, the Six Mile creek, and by the inlet of the lake. The tributaries of the streams interlock with each other, and thereby render the passage of the ridge, comparatively easy of accomplishment.

The greatest depression was found at the summit of the eastern or Six Mile creek route, viz. 593 feet above Cayuga lake.

The summit of the inlet or Spencer route, lies about seven miles S. W. of Six Mile creek summit, height 679 feet.

The third depression is at the town of Danby; it lies between the two first, its height as determined by the survey of Mr. Hughes, is 833 feet.

Route by the valley of Six Mile creek.

The village of Ithaca is situated about one and a half miles south of the head of Cayuga lake, on an extensive flat or bottom, surrounded by hills from 400 to 700 feet in height. This elevation being attained generally within two miles, and in some places less; it may be inferred therefore, that an advantageous position may be obtained for an inclined plane of any elevation, that it may be deemed expedient to adopt.

From the head of boat navigation, at the point marked inlet bridge on the map, the route will cross the flat before mentioned, and strike the foot of the hill south of the Brewery; from thence after overcoming the entire height of the summit, 593 feet, by two inclined planes disposed in a manner to be described hereafter, it will continue on the south side of the creek, following the general course of the hill to the summit, a distance of nine miles from the inlet. Generally, the formation is sufficiently favourable in its character, to admit a passage for the road without any abrupt deflections. The principal obstacle will be found in the many deep ravines that occur on the route, between the head of the upper plane, and Isaac Hollister's, B. M. XV. about six and a half miles from the inlet. In this distance the route crosses twenty-two ravines, varying in depth from ten to sixty feet; and from twenty five to two hundred and fifty feet, in width. The valley of the creek is deep and bounded by precipitous banks for a distance of four and a half miles; the stream in many places pitches over considerable falls and rapids; its bed throughout this part is mostly inaccessible from the south side. As it approaches Rowe's mill, the valley gradually extends itself; and at the entrance of the Beaver meadow, the mountains are about one and a half miles apart; that on the south slopes gradually to the creek; and affords from B. M. XV. to the summit, favourable ground generally; about four miles of this portion of the route will be through timber land. The surface of the ground at the summit, is loom; and spongy to the depth of twelve to fifteen inches. The substratum is a stiff clay impervious to the water that occasionally collects there, and also to the roots of the trees; these being found in every instance with their roots extending laterally fifteen to twenty feet, and rarely going beyond 18 inches in depth. The foundation was found sufficiently firm to sustain any weight that it would be required to support.

The Beaver Meadow creek and east branch of the Cattatunck, have their sources in the elevated part of the ridge west of this swamp; and after running a course parallel to each other for one mile, turn one to the north and the other to the south.—When these streams are high, the water finds its way into the swamp from each, and thus mingle; leaving it to chance whether it discharge itself eventually into the gulf of St. Lawrence, or into the Atlantic 1,000 miles south, through Chesapeake bay.

From the summit to Owego on the Susquehannah, the distance is about twenty-one miles, and the fall 179.88 feet; thence to the level of the river 21 57, or a total fall from the summit to the Susquehannah of 201.45 feet. The hills which bound the valley of the Cattatunck, are about one mile apart at the swamp; the creek bottom itself may be from 6 to 800 yards wide. The route, after crossing the Cattatunck and passing 550 yards over the gorge of a piece of this marshy ground, continues down the west side of the creek through timbered land, one and an eighth miles to Munar hills. At this place it crosses to the east side of the creek, to avoid some side cutting that would occur below on the west side, where the hill and creek close in together. Where the route crosses, the stream is twelve feet wide, banks two feet high; from thence through favourable ground alternately cultivated and timbered, it continues on the east side to B. M. VI. on Annus Stevens' land, two and an eighth miles below the summit. The ground was represented by intelligent persons to be much better on the west side of the creek, for a distance of two or three miles below this point. The ground on the east side is practicable but more broken, owing to the proximity of the hill to the stream; and as in the mode of construction proposed, the passage of creeks, &c. may be viewed as an inconsiderable obstruction, it was deemed better to cross; accordingly the route on the west side was pursued to B. M. X. where the turnpike from Ithaca to Owego crosses the creek. The ground between VI. and X is favourable; the route lies at the foot of the hill, occasionally crossing narrow slips of swampy ground before referred to. At these swampy places, the nature of the substratum was frequently examined, and uniformly a firm foundation either of clay or gravel was found at the depth of usually twelve inches; from B. M. VI. to VIII., one and five eighths of a mile the land is heavily timbered; near IX the route crosses the turnpike, creek eight feet wide, bank two feet high. At B. M. X. the valley is from 5 to 600 yards wide; the route crosses at this point, and may be continued to Owego, fifteen miles and a quarter on the east side; from B. M. VIII. to a point near W. Smith's tavern, two miles below, the land is generally cultivated; at this point the route enters a piece of marshy ground that extends from the road to the creek three-eighths of a mile. This swamp at the turnpike is quite wet; but nearer the creek a favourable passage may be had; the ground in this swamp is similar to that before described. A short distance below, the Shandakin enters the Cattatunck, washes a bank twenty to twenty-five feet high for a distance of 150 feet, rising at an angle of thirty-five degrees; this will involve a small portion of side cutting. B. M. XII. is at C. Gridley's; the creek bends off to the east here, and the route, after crossing a small piece of wet meadow, strikes the foot of the hill where the creek washes it. Some side cutting will be necessary at this spot; ground timbered principally from XII. to Mr. Booth's, three quarters of a mile. From B. M. XIII., near Booth's, to XV. below Bacon's mill pond, two routes are presented. The creek, in this part of its course, crosses the valley several times, washing alternately the base of the eastern and western mountains. It is proposed to cross four times, in order that advantage may be taken of the best ground. The route on the east side encounters a shelf of steep ground forty feet high, and 300 yards in length, at Hart's mill pond; this was partly avoided by leaving the stream near the head of the pond, and pursuing a course further east, through a hollow or ravine, which bears evident marks of having been the bed of the creek at a former period; the principal difficulty, however, is at Bacon's mill pond, one mile and an eighth below, B. M. XIV.; at this place a small spur of the mountain of fifty feet in height, closes in with the creek for a distance of three-eighths of a mile, rising at an angle varying from twenty-five to forty degrees; both these obstacles may be avoided by crossing the stream four times, between XIII. and XV.; the first place would be at Woodford's above Sackett's mill pond, the last at Hibbard's below Bacon's pond; the intermediate crossing would be necessary to avoid a part of the mountain, that closes in with the creek for three eighths of a mile on the west side. The ground through the last described route, is evidently better than the first; the distance will be somewhat lessened, the side cutting avoided, and the turnpike need not be crossed; the route may be kept below the turnpike by following the eastern side, but the advantage of ground would be sacrificed; moreover, it is believed that the expense of crossing the creek thus often, would be less than to pursue the route on the east side; it is therefore recommended.

A bed of iron ore was discovered by Mr. Hughes in the side hill at Bacon's mill pond; his description accompanying this report, is referred to for a particular account of the locality, quality, &c.

XV. to XVI., the route is through favourable ground; at XVI. the hill and creek close for fifty feet; XVII. near Woodbridge's tavern, the graduation corresponding to the fall of the creek, may be pursued to a point three fourths of a mile below Woodbridge's. At this place the creek and second bank of twenty feet in height, come together, and continue in contact 400 yards; it will be better, therefore to preserve a *level* from a point far enough above to strike the top of this shelf, as following the slope of it near the margin of the stream would be both circuitous and expensive; XVIII. is at C. Sackett's saw mill, the route crosses the bed of a ravine a short distance below, eight feet wide, and banks two and a half feet high; ground from thence to B. M. XX., opposite Jones' mill, is generally favourable; it passes through some timber, but there is no obstruction.

The route will cross Owego creek about 400 yards above its junction with the Cattatunck; at the crossing place its bed is one hundred and forty feet wide, bank four and a half feet high. A part of the track on the east side must be elevated about two feet, to keep it beyond the reach of freshets. Half of a mile below this creek, the route crosses a ravine called Huntington's brook; it rises one mile and a half N. E. of the Owego creek. At the time the survey was made, it was dry; but during the wet season, it pours down a large volume of water with great violence. The route will pass 200 yards west of the turnpike at this place, to avoid a small spur that protrudes itself towards the creek; from thence it will continue through the flat, and may enter the village of Owego, at any point west of Judge Drake's, that may best suit the convenience of the inhabitants.

Distance from the Inlet to Owego by this route, 29.6 miles; rise from Inlet to summit, 593.15; fall from thence to Owego 179.88.

[Two other routes are designated in the report but it is evident the one above, will be preferred if the road is carried into effect. There are calculations in the report, of great local importance as respects the road in question, but we omit them, as they would not it is probable excite general interest.

The report from which the preceding extracts were taken, was forwarded to the editor of the Farmer, by Charles Pumpelly, esq. of Owego in the state of New York.

The two points proposed to be united by the Ithaca and Owego Rail-road, are of great importance in the inland improvement of the U. States.

Owego, a post town and village of considerable magnitude, and population, in the south eastern part of Tioga county New York, stands on the right or northern bank of the eastern branch of Susquehannah river, at the mouth of Cattatunck or Owego creek, about 20 miles above the junction of Susquehannah and Chemung rivers.

Ithaca, is the seat of justice for Tompkins county, New York, and stands as described in the preceding report, at the head of Cayuga lake. This lake is in a peculiar manner situated and calculated to unite the inland navigation of New York, to the great navigation of the basin of Chesapeake. The Cayuga is about 40 miles in length, from north to south, with a breadth of from one to three miles, and by its outlet communicates with the great Erie canal at Montezuma. Therefore a well constructed rail-road from Ithaca to Owego, would at once open a new artery to the heart of our country; and would serve as another channel through which much of the most valuable products of agriculture would be poured into the lap of Baltimore.]

LADIES' DEPARTMENT.

FEMALE EDUCATION.

South Carolina Female Institute.

[An establishment under the above designation is advertised to be opened this autumn, in the vicinity of Columbia, by Dr. Elias Marks. The principal is to be assisted by two female and two male teachers, by whose efforts and under his direction and superintendance an extensive and superior course of instruction is to be given. The institution is designed to afford to females advantages somewhat similar to those which are enjoyed by young men at colleges and other seminaries of the highest order. The plan, as delineated in the prospectus embodied in the pamphlet* from which the following extracts are made, seems very comprehensive. It is, at the same time, entirely practical, and thoroughly exact in its details. In these respects, as well as in the character of the introductory general views, the pamphlet is highly valuable as a treatise on education. It is the result of a long continued and profound attention to the subject, aided by the advantages of talent and experience.

We regret extremely that our limits will not admit of our copying the whole of this pamphlet, as its contents are such that we should be happy to aid their dissemination, and to give them, as far as in our power, a permanent place among the valuable resources of instruction. We must restrict our extracts, however, to the author's general observations, in which our readers will be able to trace much sound and original thinking, expressed in an animated, easy, and graceful style, which seems free from every fault but that of too much brilliancy.

The details of arrangement for accommodation, instruction,† and government, are planned with peculiar felicity, and are so contrived as to favour, in the highest degree, the health and the moral improvement of the pupils. But several of these topics we are compelled to omit for want of room. [*Am. Jr. Ed.*

Identity of Moral and Mental Improvement.

Does the education of the female, tend to the benefit of society? Has the knowledge, thus acquired, a direct influence on her own character and conduct, and a correspondent effect on her immediate family, and the sphere in which she moves? These are questions of no ordinary import, and on their issue, much good or evil will depend. The knowledge of our duties in life, furnishes us with a *chart*, whereby we may arrive at the performance of them. There is no question, that most of our errors in conduct, arise from defects in judgment; and it requires some cultivation, to understand, that while we are contributing to the welfare of others, we are effectually conducing to our own. An untutored being cannot be made to comprehend the force of this reasoning, which immediately fastens itself upon the conviction, of one of cultivated mind. It is, indeed, one of the errors of the vulgar and illiterate, that *goodness* and *intellect* are two distinct things.—This reference of a virtue to the head or heart, is not very comprehensible. Most of our follies and vices, proceed from a mental defect, original or adventitious. "To do those things which we ought not to do, and to leave undone those things which we ought to do," is an error in reasoning, a practical solecism. Right reasoning is, therefore, essential to our happiness. There is, undoubtedly, a connexion between all the faculties of our being. The perception of right, for instance, must precede the performance of it; otherwise, it is casual and ceases to be a virtue. Here, then, the moral and intellectual sense are associated, or rather the latter is the efficient principle of the former. We perceive a regular and gradual succession from the earliest and simplest perceptions of right, and what is most beautiful and sublime in morals. The fountain of all wisdom, is the fountain of goodness, and the being who aspires to the one, must love the other. Virtue, then, is both a moral affection and a demonstrable truth; it must be understood in order to be felt and practised.

Opposition to the Mental Cultivation of the Female sex.

We are persuaded, that on a subject of this kind, in the present enlightened age, it is the people who are the warm advocates for the cultivation of the female mind. The opposers to this, are a mere oligarchy, consisting of certain spruce philosophers, who dread, if women be taught to think and speak rationally, she may be less useful in the various duties of domestic life. Without going back to those periods of classical prejudice and scholastic pedantry, when every adventurer, in order to prove himself a sage, was compelled to abandon the sweet domestic sphere of household comfort, we need only revert to the age of the courtly Waller, the elegant Addison, and the learned Swift. Even here, woman is regarded as the insipid gaud of her companion, man, when the latter has become vapid by intellectual exhaustion, and when vacuity has become desirable, as a relief from study. Yet, in truth, how extraordinary is it, that woman, who, in the various relations of society, exerts so wonderful an influence on its members, should be treated with so refined a courtesy, "as to be bowed out of the very circle of humanity." This conventional duplicity ought to be frowned down by the better part of society. An overacted courtesy, to a woman of understanding, is nothing less than insult. The mockery of homage, which the would-be *homme d'esprit* carries with him into the circle of female society, is an indirect denial of the common sense of the latter. It will be found, on investigation, that this sentiment appertains to those, who, on subjects of a more important nature, connected with the deep toned, moral character of society, are apt to think too lightly of those things, of which the *cui bono* is not immediate and tangible. It is, in fact, a skepticism of the heart, founded upon a skepticism of the head; an uprooting of all the original germs of social virtue, and heart felt enthusiasm—planting in their stead a meagre, cold, and cheerless philosophy; rendering the human being the creature of calculation and narrow selfish policy, and shutting out from the view, all which tends to ennoble, dignify, and exalt the human character. I dare to hazard the opinion, and to be accountable for the exceptions, that most of these beings will be found, on inquiry, to be on the side of grovelling materialists; a kind of mechanico-political economists and egotists. With these religion and social virtue are weighed in a kind of statistical balance, and, of course, are "found wanting."

With enlarged and liberal minds, properly exercised and well directed moral affections, I have found but one sentiment in favour of the cultivation of the female mind; all being equally aware, that society owes its character and happiness to the most amiable and least sophisticated portion of our species.

THE CHRISTIAN'S DEATH-BED.

Go, child of darkness, see a Christian die;
No horror pales his lip, or rolls his eye;
No dreadful doubts, or dreamy terrors, start
The hope religion pillows on his heart,
When with a dying hand he waves adieu
To all who love so well, and weep so true:
Meek, as an infant to the mother's breast
Turns fondly longing for its wonted rest,
He pants for where congenial spirits stray,
Turns to his God, and sighs his soul away.

[*Manchester Herald.*

SPORTING OLIO.

NEW MARKET RACES.

First Day.—Two races were run; the first a sweepstakes for two year olds, one mile out, $50 entrance, ten subscribers. Eight colts started for this purse. Dr. Minge's filly took the lead and kept it to the end of the race, though closely pressed by Mr. W. Wynn's colt. Time, 1m. 56s.

The second, a Produce sweepstakes for three year olds, two mile heats, $200 entrance, 9 subscribers; only three started—was won by Mr. Selden's filly, the produce of Lady Talman by Sir Archie, in two heats, beating Mr. Johnson's colt, the produce of Reality by Sir Charles, and Mr. Grave's colt, the produce of his Gouty mare by Sir Charles. Time, 1st heat, 3m. 51s; 2d heat, 3m. 54s.

Second Day.—Proprietor's Purse, $500, two mile heats—six entries. This race was won in two heats by Mr. Johnson's Star, beating Dr. Bolling's Brunette, Mr. Harrison's M'Duffie, Mr. Bott's Lafayette, Mr. Maclin's g. m. by Sir Hal, and Dr. Minge's s. g. by Virginian. Lafayette was withdrawn after the first heat. Time, 1st heat, 3m. 36s.; 2d heat, 3m. 54s.

Third Day.—Jockey Club purse, $650, four mi. heats. This purse was taken by Ariel, in four heats. The following is the judges' award:

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*Hints on Female Education, with an Outline of an Institution for the Education of Females, termed the South Carolina Female Institute. Columbia, 1828.

†There is, we think, but one questionable point under this head, and it is the conferring of a sort of *diploma*. This may stand, however, as but a more formal name for a certificate of study and acquirements.—Ed. Am. Jr. Ed.

Wm. R. Johnson's Trumpator,	4	3	1	2
Mr. Graves' Red Murdock,	1	2 dist.		
Dr. Bolling's Ariel,	3	1	2	1
Mr. Burwell's Hippona,	2 drawn.			

Time, 1st heat, 8m. 22s.; 2d heat, 9m. 13s.; 3d heat, 7m. 57s.; 4th heat, 8m. 4s.

This race was among the most interesting that has been run on the New Market course for many years, and afforded fine sport to the spectators.

Fourth Day.—The Post stake, two mile heats, $200 entrance, half forfeit, five subscribers, was taken by Polly Hopkins, (entered by W. R. Johnson,) who, having no competitor, merely gallopped round the course. The sweepstakes, $50 entrance, one mile heats, was won in three heats by Mr. Eggleston's Cæcilia, beating Mr. Garrison's Cock Robin, (who took the first heat,) and Mr. Findley's mare. Time, 1st heat, 1m. 53s.; 2d beat, 1m. 54s.; 3d heat, 2m.

TREE HILL RACES.

First Day.--$500—two mile heats.

James M. Selden's b. f. Kate Kearney, by Sir Archie,	1	1
W. M. West's b. c. Pawnee, by Sir Archie,	2	dr'n
William R. Johnson's b. f. Slender, by Sir Charles,	4	2
Henry M. Clay's b. f. Waxey, by Sir Archie,	3	dr'n

Time, 1st heat, 3m. 57s.; 2d heat, 3m. 50s.

Second Day.--$300--two mile heats.

W. R. Johnson's b. f. Slender,	1	1
J. M. Botts' b. h. Lafayette,	4	3
W. M. West's g. f.	6	dr'n
John Minge's s. m. Sally Drake,	2	dr'n
J. J. Harrison's b. m. Susan Robinson,	2	dr'n
H. Clay's b. c. Caswell,	5	2

Time, 1st heat, 3m. 56s.; 2d heat, 3m. 52s.

Third Day.—Jockey Club Purse of $1000, four mile heats, was contended for by Mr. Bolling's Ariel, Mr. Johnson's Star, and Mr. Selden's Kate Kearney, and was won by the latter at two heats.—Time, 1st heat, 7m. 59s.; 2d heat, 8m. 1s.

Fourth Day.—A Post stake, $450—3 mile heats.

Wm. R. Johnson's b. f. Slender,	1	1
R. P. Bolling's b. h. Melvin,	2	2
J. J. Harrison's s. m. Maid of Lodi,	dist.	

Time, 1st heat 5m. 58s.; 2d heat, 6m.

Fifth Day.—A Post stake for three year olds--2 mile heats.

R. P. Bolling's b. f. Polly Hopkins,	1	1
John Minge's b. f. Sally Melvin,	3	dr'n
J. M. Selden's b. f. Kate Kearney,	2	2

Time, 1st heat, 3m. 52s; 2d heat, 3m. 56s.

Same Day.—A Sweepstakes for colts, 2 mile heats.

Wm R. Johnson's b. f. Sally Trent,	1	1
J. J. Harrison's b. c. Jumping Jim,	2	3
John Minge's s. h. Wyanoke,	3	2

Time, 1st heat, 3m. 58s.; 2d heat, 4m. 2s.

CANTON RACES.

Third Day.—$400—four mile heats.

This race was one of intense interest, though concluded in one heat. *Bachelor*, who won the first heat, was unfortunately taken with what jockeys call the *thumps*, and withdrawn. The second heat was of course taken by *Industry*, by merely walking the course. The heat was run within twelve seconds of the time of the great match race between Eclipse and Henry. The first mile was intended more as a *feeler* between the combatants than as a trial of speed. The consequence was, that it was run in slower time than it otherwise would have been. The heat was closely contested throughout, and afforded great amusement to the spectators. There was scarcely a period of five seconds from the starting to the coming out, that the two horses were not locked; and the heat was merely won by a few inches. [*Marylander.*

CANTON RACES.

[The French Gentleman of whom we have spoken in our last number, has handed us another extract from his journal, containing an account of, with some reflections upon, the late *Canton Races*. The limits of our journal do not permit us to insert it entire this week; but we shall have the pleasure to give the conclusion in our next number.]

Courses de Chevaux—24 Octobre.

Mon séjour à Baltimore est marqué par des événemens qui, le rendant fort agréable le prolongent au delà du tems que j'avais fixé pour quitter cette ville. J'y trouve, chaque jour, de quoi satisfaire ma curiosité et enrichir mon recueil d'observations. Cette semaine, j'y ai joui du spectacle des Courses de chevaux. Elles ont commencé le 22 et ont été continuées le 23 et le 24.

Le premier jour, quatre chevaux ont concouru pour le modeste prix de 750 fr. C'était *le Fauquier*, *le Mohican*, *le Flirtille* et *le Prince Georges*, tous de l'age de trois ans. C'est la première fois que j'ai vu courir des chevaux si jeunes, et certes ils ont fait preuve d'une vitesse pour le moins égale à celle que j'avais remarquée dans des chevaux d'un âge plus mûr. L'espace à parcourir était d'environ 1800 toises. A la première épreuve *le Mohican* l'a emporté sur ses rivaux. Il est arrivé au but en 4 minutes. *Le Fauquier* le suivait de très près: les deux autres luttaient avec moins de bonheur. A la seconde épreuve, *le Mohican* et *le Fauquier* ont encore laissé derrière eux *le Flirtille* et *le Prince Georges*: ils se sont constamment tenu sur la même ligne et ont atteint le but au même instant. Cependant comme le premier dépassait son adversaire d'environ trois pieds, le prix lui a été adjugé. Les deux milles ont été faits en moins de 4 minutes.

Le second jour, la Course était beaucoup plus attrayante. Un grand nombre de Dames l'ont honorée de leur présence. Cette circonstance me fournira le sujet de quelques réflexions: je veux, avant de m'y livrer, parler de la Course en elle même. Quatre chevaux, comme au premier jour, sont entrés en lice, *le Mulatto Mary*, *le Florival*, *le Sir Albert* et *le Spottee*. Au signal du départ, ils se sont élancés avec une égale vigueur, mais bientôt *Sir Albert* et *Mulatto Mary* ont pris une avance considérable, et la lutte ne s'est véritablement engagée qu'entr'eux. Ils se sont mutuellement dépassés plusieurs fois dans les trois tours de la première épreuve; la chance paraissait égale; il n'y avait pas plus de probabilité pour l'un, que pour l'autre; mais au moment d'arriver au but *le Mulatto Mary* ayant fait un effort généreux, la fortune s'est déclarée pour lui. L'espace a parcourir était d'environ 2,700 toises. Je crois que le trajet a eté fait en moins de 6 minutes. Après un intervalle de demi-heure, la seconde épreuve a eu lieu. Il ne s'est alors présenté que trois concurrens. *Le Spottee* n'a pas reparu, et l'on a eu raison de le retirer du concours; il se serait envain battu les flancs: ce cheval ne semble pas taillé pour la course. *Le Mulatto Mary*, *le Florival*, et *le Sir Albert* sont partis comme l'éclair *pour fournir leur carrière*. Le premier, qui l'avait emporté dans l'epreuve précédente, a conservé dans celle-ci sa supériorité: il a toujours été en tète de la ligne, et la victoire n'apas été un moment incertaine. *Le Florival* semblait dabord vouloir faire oublier la mauvaise opinion qu'on avait conçue de lui, en prenant dans la course le second rang; mais au troisième tour son ardeur s'est ralentie et il a été laissé bien loin derrière *le Sir Albert*. *Le Mulatto Mary* a atteint le but en 5 minutes 50 secondes. Le prix de 1,000 fr. lui a été adjugé. J'ai remarqué une espèce de désappointement sur les visages. Tout le monde paraissait s'intéresser à *Sir Albert*. En voyant de près ce beau cheval, je n'ai pu m'empêcher, je ne sais trop pourquoi, de partager les sentimens et les regrets du public.

Le vendredi, il s'est présenté seulement deux chevaux pour le concours. Aussi la course n'a pas offert le même intérêt que les jours précédens. *L'Industrieux* et *le Bachelier* ont paru dans la lice pour disputer le prix qui était de 2,000 fr. Le premier l'a obtenu, et à mon avis il ne le méritait pas. Voici cequi est arrivé. Les chevaux devaient courir quatre milles. A la première épreuve, (pour me servir d'une expression des conducteurs de diligences Françaises) ils ont *brûlé* leur route. Même pas, mêmes mouvemens, même vitesse: ils semblaient courir en mesure et me rappelaient ces vers de l'admirable traducteur des Georgiques:

> Tous les pieds des chevaux qu'un même ordre rassemble
> Vont tombant, remontant et retombant ensemble,
> Et de leurs quatre fers battant les champs poudreux
> D'un tourbillon de sable obscurcissent les cieux.

La victoire a été disputée jusqu'a la dernière toise. Cependant *le Bachelier* a été plus heureux. En arrivant au but, il dépassait son adversaire de la longueur de son encolure. Restait une autre épreuve qui s'est fait attendre long-tems. Enfin la trompette a retenti pour la seconde fois, et l'Industrieux est entré seul dans l'arène. On a annoncé une indisposition subite de son redoutable adversaire: attaqué d'une colique violente, celui-ci n'a pu reparaitre sur la scène du combat, et *il est demeuré comme enseveli dans son triomphe.* Alors *l'Industrieux* s'est mis seul en course, avec une nonchalance qui m'a fait croire dabord qu'il était aussi malade. Il a conservé cette allure paresseuse tout le tems de la seconde épreuve et il a mis un quart d'heure à faire les quatre milles obligés. Je ne savais que penser de cette course ou plutot de cette promenade lorsqu'on m'a dit que le cheval avait fait les quatre tours de l'hypodrome seulement pour la forme, et que pour obtenir le prix il n'était tenu qu'à atteindre le but. Aussi le lui a-t-on adjugé. Or, voilà cequ'il m'est difficile de comprendre. Ce cheval, à mon avis, ne méritait pas la couronne parcequ'à la première épreuve il avait été vaincu, et qu'à la seconde il n'avait pas eu de rival à combattre ou' de difficultés à surmonter. Or, sans combat point de victoire: c'est un principe reconnu. J'ai bien vu dans des Académies de France donner des prix à des discours, à des mémoires, à des pièces de vers quoiqu'il ne se fut présenté qu'un individu au concours; mais la pièce envoyée à la commission d'examen avait paru réunir toutes les qualités désirables, et l'on pouvait dire alors que l'auteur quoique sans rivaux avait pourtant combattu puisque le plan qui lui avait été tracé offrait des difficultés à surmonter, et qu'il en avait triomphé. J'ai encore vu, (pour citer des exemples entièrement applicables à l'espèce) j'ai vu, dis-je, des courses de chevaux dans l'Auvergne, dans le Limousin, à Bordeaux et à Paris. Il est bien arrivé quelquefois que des chevaux qui avaient couru à la première épreuve ne reparaissaient plus dans l'arène, et qu'ainsi un cheval seul entrait en lice; mais alors celui-ci était *obligé*, pour être proclamé vainqueur, d'arriver au but dans un tems donné. Je ne pourrais pas fixer au juste ce tems: je crois, toutof fois, me souvenir que 2,500 toises devaient être parcourues en 7 ou 8 minutes. Ordinairement les chevaux ne mettaient pas tout ce tems à faire leur course. Cependant il est de ma connaissance qu' à Aurillac chef-lieu du Dept. du Cantal en France, on n'apas donné, une année, le prix d'arrondissement parce que deux chevaux qui couraient à la seconde épreuve avaient dépassé de quelques secondes le tems fixé par le règlement.

Ce règlement me parait conforme à la justice et à la raison, et il devrait être en vigueur principaledans ce pays ci ou les chevaux sont supérieurs, pour l'agilité, à ceux de France, d'Allemagne et même d'Angleterre. Car je suppose qu'il ne se présente (comme il est arrivé aujourd'hui,) que deux chevaux au concours. Qui empêche leurs maitres de s'entendre et de faire entr'eux un arrangement d'après lequel ces animaux se proméneront de front au petit trop et même au pas dans les premiers tours et ne se mettront réellement en course qu'au dernier? Qui empêche encore ces propriétaires de se dire: "Ne fatiguons pas nos chevaux; faisons les courir sans les gêner à la première épreuve; à la seconde, un d'eux se retirera du concours pour cause *d'indisposition;* alors l'autre se promènera seul, pour la forme dans l'arène, *d'un pas tranquille et lent*, et nous partagerons les $400. Nous aurons ainsi chacun 1000 francs et nous ne craindrons pas pour nos chevaux les suites d'une course forcée." Je le demande, l'objet qu'on s'est proposé par l'établissement des courses serait-il rempli de cette manière?

Ayant hazardé de faire connaître mon opinion sur les lieux, j'ai entendu quelqu'un la combattre. On disait: "Puisqu'il ne se présente qu'un seul cheval pour courir, de quel intérêt peut-il être de le voir suer sang et eau et faire des efforts superflus pour atteindre le but?" Cette raison, au premier aspect, paraîtrait de quelque valeur; mais en y faisant quelque attention, on voit bientôt qu'elle n'est que captieuse. En effet, il n'est pas indifférent, il n'est pas sans intérêt de voir un cheval parcourir quatre milles en huit minutes. C'est même là l'esprit de l'établissement des courses. Ce qu'on a du se proposer, par sa création, c'est d'avoir des chevaux bons coureurs, d'en propager et d'en améliorer les espèces.

Je n'ai pas le droit, je suis même bien loin d'être dans l'intention de critiquer ce qui s'est passé aujourd'hui. Je fais simplement une observation. Il y en a eu de moins utiles qui ont cependant produit d'importantes améliorations.

(*To be concluded in our next.*)

GAME DOGS.

Extract of a letter from a gentleman in Virginia, dated New Kent, July 31, 1828.

Last winter was the first my dogs run; they were run with a very strong pack, mostly of the same stock, one and two years older. How much of the credit is due to mine, I will not decide. In a hunt the last week in November, joined with a very fine pack; they commenced on Thursday, soon started and caught a grey fox; they then put up a fine buck, who soon swam Mattapony river, where it is about half a mile wide; some of the dogs pursued him across; the huntsmen took the balance across at Frazer's ferry, but they suppose they lost two hours in getting to and crossing. In that time the pursuing dogs had come to a fault, by the buck going into a pond in the corn-field, and laying down. The pond having been hunted around by the dogs, the huntsmen could not believe he was there, and hunted around the field for better than an hour; they then decided he must be in the pond, and returned and put him up again, but it was so near night they decided to blow off the dogs. On Friday they caught a red fox. On Saturday, after a tolerably early breakfast, each party being anxious to try the bottom of each other's pack, they concluded to go five or six miles, where there was almost a certain chance of starting a red fox. They reached the ground after 9 o'clock; they soon put up a red fox that ran very well for an hour or two, which they caught. This increased the desire to start a second, which was done, and caught in about the same time; but no victory could be claimed by either. They then concluded to try to start a third, which was done, and about sunset he was banked, but too late to be dug out. In this chase our pack was conspicuous. Not more than five or six dogs after the fox at the conclusion, and all of them ours, and amongst them some of my young dogs (who had run fairly, and in front the other two chases,) were in front. After resting and getting stiff, it was with difficulty the dogs followed to where they started from in the morning. The hunt ending, they separated on Sunday morning, and with much difficulty our dogs could be got to follow. An old huntsman observed, that they would not catch another fox shortly. My nephew, who lacks experience, believing the observation proceeded from his dogs being beaten the evening before, offered a bet of a ten dollar hat that he caught a fox next day; it was accepted, and on Monday they started and caught a grey fox in less than twenty minutes; and on Tuesday two. In the season they caught thirty-seven, and did not hunt very much. After Christmas, they caught three grey foxes one day. I believed then, as I do now, that the foxes did not run as well as common, owing, as I believe, to the warmth of the winter. If I should not be deceived next winter, in my expectation, I will stock you next spring: but I must believe them good, or I will not send them.

W. C.

MISCELLANEOUS.

A Whaler.—The number of miles traversed by many of the Nantucket whalemen, in their daring pursuit, is almost incredible. There is one person belonging to that hardy island, George Washington Gardiner, who has passed over a million of miles on the ocean, and taken one thousand and sixty-four whales. The whalemen keep their memoranda, by sketching in their journals the form of a whale, whenever they have succeeded in capturing one; and it would be considered the basest of forgery to make a false entry.

Singular.—A short time since a gentleman of Providence, R. I. was out in the suburbs endeavouring to get a shot at a large eagle. Suddenly the eagle sprang upwards, and continued to wing his flight spirally to an immense height, nearly out of sight, when he fell to the earth, nearly on the spot whence he had flown. On approaching the eagle a small weazel was observed to run from the body, and on examination it was found the animal had got under the eagle's wing, and commenced feasting upon his blood, until the noble bird fell from exhaustion. The little marauder then made his escape.

THE FARMER.

Baltimore, Friday, October 31, 1828.

☞The Trustees of the Maryland Agricultural Society spent the day yesterday, by invitation, with their late colleague, Col. N. M. Bosley, on the *La fayette Premium Farm.* The weather was fine, and all conspired to render it a most agreeable excursion. There was evidently no falling off in the management, nor the productiveness of "Hayfields;" early rising, work well done, a judicious application of manure, a skilful routine of crops; and results corresponding therewith—energy and sound judgment ruling without, and taste and neatness and harmony presiding within! So may it ever be with the free born cultivators of the American soil.

"This is the life which those who fret in guilt
And guilty cities, never knew; the life
Led by primeval ages, uncorrupt,
When Angels dwelt, and God himself, with man!"

☞We have not had leisure for the further reflections upon the late Cattle Show which we promised in our last. It will have been seen that a committee has been appointed to suggest such plans and arrangements as may best conduce to the efficacy and utility of these annual exhibitions.

We feel authorised to say that the committee will consider themselves under obligations to any one who will make suggestions connected with the object of their appointment. The sentiment of the Board of Trustees, and of the public as far as we can learn is decidedly in favour of giving to these shows the character of Fairs, such as are held in England for the sale of every thing, especially of domestic animals; and we are persuaded that if those who have judgment and leisure to mature a plan, will take it into consideration, it will not be difficult to accomplish the useful purposes which are obtained by such fairs elsewhere.

That they will be attended with vast advantage to the agricultural community, and with great convenience and saving of time to the public generally, cannot be doubted. We should not despair, after a few years of perseverance, to see on these occasions in spring and autumn, an immense concourse of people coming, not only from Maryland, but from Delaware, Pennsylvania and Virginia.

It will be there that owners of stages will buy their horses. So will gentlemen in town, and farmers in the country wait to supply themselves with horses for the plough the wagon and the saddle. It will be on these occasions that the hundreds of milch cows which are now bought by people in town, at second hand and at a great advance, will be bought directly from the farmer, who, in his turn, will buy up at fair value the dry cows that are sold for a *sous* by people in town to an intervening cow dealer, who sells them to the farmer at an advance of 100 per cent.

He who has any stock to sell, will reserve it for the fair, and will make one visit to Baltimore, or at most one in spring and one in autumn, there to sell his beasts and his produce, and to lay in his stock of groceries, hats, saddles, leather, produce, implements, &c. &c. Moreover, the great difficulty now experienced in furnishing dry cattle will be overcome. For here the competition will be sufficient to ensure a fair price. At this time we could name a few gentlemen who would amongst them take 1,000 head of stock cattle.

To realize these advantages, requires only that some few gentlemen who *have leisure* should take up the subject, and with a determination to achieve them by appropriate, systematic and persevering measures; writing to influential men, making expositions in the publick papers, &c. &c. in a word by *going to work in good earnest*,—and not, heaven save the mark! by *talking, and talking, and talking, about and about it!*

☞Sheep.—The number of these animals sent to the late Cattle Show was very small, but most of them possessed striking merit in their way. There were the fine woolled sheep of Saxony, the Bakewell, the Southdown, and the mixed blood. We were surprised not to find a readiness to purchase a genuine Southdown ram, as an opportunity to do so rarely offers, and the blood is known to improve incalculably the flocks on which they are crossed, in the qualities of hardiness and good mutton. We know that Col. Lloyd, one of the most extensive breeders of sheep in this country, considers the cross made upon his flock by the Southdown as having been in the highest degree fortunate and advantageous in the particulars above mentioned.

We have no means of knowing; we wish we could find out, how much the farmers of Maryland derive from *the sale of wool*, towards paying their debts and buying necessaries. We beg to call their attention to the following, which we find in the New Hampshire Patriot:

"Calvin Benton, Esq., of Lebanon, has purchased within the last few weeks, 112,893 lbs. of merino and half-blooded wool for the Boston market—all the product of farms principally in this state, within twenty miles of and including Lebanon. For this he has paid out $46,996. The average price he has paid was about forty cents per pound. The sum of money paid for the products of one summer in one article, (and it is not to be presumed that all the article was included,) is more considerable than we have ever known by any single individual in a single article, the produce of our farms."

"There are in the United States about 20,000,000 of sheep; their value, only with reference to their fleece, may be estimated by comparing their produce—say 1½ lbs. each, with the price above. The price of wool is of course governed by the amount of cloths manufactured.

"In referring a few days since to a New Holland paper; we found wool quoted at 3d. a 4d."

☞Quick Work.—On Wednesday morning the shaft of the steam-boat Philadelphia was broken, off North Point, and the mail was not received in time to be despatched from Baltimore to Washington until half past 10. Messrs. Stockton & Stokes had in waiting a light wagon with four fine greys, ready to fly at the first crack of the whip.

John McKean, a reins-man of the first chop, took the box, and driving through the 40 miles in three hours and fifty-five minutes, delivered the mail at Washington, preventing a break in the connection with the South.

To a man who has an eye for the thing, and delights in seeing work well done, it is gratifying to see the *style* in which this faithful driver takes his seat and handles his reins. The very horses know by the handling that he on the box knows his business and *theirs too.* Many a mock hero has been praised to the skies for a battle in which he displayed not half the strength of nerve, quickness of eye and self possession evinced by a bold driver of a mail stage; and who can calculate how much evil he sometimes prevents by saving a mail? And after all, whether in high or in low rank—

"Worth makes the man, and want of it the fellow,
The rest is either leather or prunella."

McKean is the same who brought us the President's message last year in two hours forty-five minutes.

☞Information. Calls continue to be made upon us to ascertain whether *McCall's* family spinner answers the purpose; and if so *where it can be procured;* what is the price, and whether he has added the carding machine to it, which he said he intended to do? We cannot tell, though we have advertised our wish to know, Mr. McCall's particular residence, we wish he would answer for himself through this paper.

☞A Mr. W. B Honyman, in a letter to the editors of the London Journal of Arts, states the fact as of his own knowledge with respect to *French* silk, and then proposes the question for solution.—"What is the reason of *yellow* gum silk being impregnated with an odour of violets, whereas, *white* gum silk is free from that or any other odour?"

PEAS.

King William Co. Virginia, }
Mr. J. S. Skinner, *October* 15, 1828. }

Sir: I have a kind of pea, which I consider superior to any other I have ever tried in quantity and productiveness; I procured a small handful two years ago, obtained from a visitor at the Virginia springs. They are excellent, in a green state resembling the garden pea, and appear to be a mixture between that and the Callavance. I present you with a peck for trial. Your obedient servant,

WM. B. BROWNE.

Latest from Europe.

(From the London Courier of Sept. 13.)

Russia and Turkey—Despatches were received yesterday from Lord Heytesbury, at Odessa, dated the 28th August. They were brought by a Russian courier. Intelligence had just been received of a vigorous sortie from Varna, in which Prince Menchikoff received a severe wound, and great apprehensions were entertained for his life. Count Woronzow, the Governor of Odessa, (who formerly commanded the Russian contingent in France,) had been appointed to succeed Prince Menchikoff in the command of that portion of the Russian army which was operating against Varna. There was considerable sickness in the Russian army, and among the deaths, was mentioned that of General Benkendorf, a brother of the Princess Leiven, an officer of great merit and highly esteemed.

Two articles from Odessa and Constantinople have been published in the Paris papers of Wednesday. The former supposes it to be the intention of the Emperor Nicholas to carry on operations beyond the Balkan this campaign, after the capture of Varna, keeping Choumla blockaded. But the blockading army is frequently harrassed by sorties, and in a recent sally, a large supply of oxen, destined for the Russian army, was cut off. The Constantinople article assures us that the Sultan is determined upon making the most obstinate resistance, and that the war is becoming every day more national. On the heights about Constantinople an army of 200,000 foot, and 80,000 horse, is to be assembled under the immediate command of the Sultan himself. Intrenchments are erecting, which are to be defended by 300 pieces of cannon.

Portugal.—Despatches were received from Lisbon, this morning, dated the 6th inst. It is with great reluctance and regret that we announce the capture of Madeira by Don Miguel's force. The squadron appeared off the Island on the 16th ult.—The troops disembarked on the 22d. On the 23d there was some slight skirmishing, and the new governor landed on the 24th. The feebleness of the resistance has surprised every one.

A Lisbon mail arrived this morning, with letters and papers to the 7th inst.

The usurper has attempted to reply to the protest of the Brazilian Ministers. It is quite worthy of the cause it advocates—as powerless in point of argument as it is false in its assertions. Speaking of Don Miguel's treachery in accepting from his brother the office of Regent, and then betraying the oath by which he swore to govern the kingdom in the name of his brother, and according to the constitution, it says, "the King found himself *under the necessity* of saying that he was coming to govern us for his august brother. But as his rights were those of the Portuguese nation, laid down in the fundamental laws of monarchy, he could not by any promises he might make, alter or deprive the nation of its rights," &c. &c.

From the N. Y. Commercial Advertiser, Wednesday Evening, Oct. 29.

Sortie of the Turks from Choumla.

We received our papers by the Silas Richards, which left Liverpool on the 25th ult.

The London Courier of the 20th says, that intelligence has been received in that city, that a sortie had been made from Choumla, in which three Russian redoubts were destroyed, and the Russians occupying them cut to pieces, eight guns having been taken, and the Russian General Wrede killed. The editor adds, that the public may place full reliance upon this intelligence. General Ivanhoff died of his wounds.

The fortress at Varna was well defended, and it is probable, the Russians have received a check there. The Emperor Nicholas left Odessa on the 2d September to return to the army before this post, and a great effort has probably been made to take it.—The Turks still found the means of introducing supplies, both of provisions and ammunition. Their resistance has certainly been such as was not calculated upon; and if the war is not to be terminated by negotiation, it will have scarcely been begun in this campaign. The Russians will not approach Constantinople until the next season, if they should ever do so.

Liverpool Market, Sept. 20.—There has been a steady demand for Cotton the past week. The sales of all descriptions from 15th to 19th inst. inclusive, amount to 15,180 bales, including 230 Sea Islands at 12½ to 18; 60 Stained 6 a 9; 3840 Upland 5¾ a 7; 2320 Orleans 5 7-8 a 8; 3010 Alabama 5 7-8 a 7. The import during the week was 5326 bales. The decrease in the supply from the United States is now 202,200 bales.

Tar.—The only sale we have to report is 600 bbls. roany at 12s. 6d. per bbl.

Tobacco.—About 300 hhds. low Virginia Tobacco have changed hands at 2¼ a 2 3-8.

A GREAT BARGAIN!!

In Lancaster county, Va., immediately bounding on the Chesapeake Bay, a very valuable Farm, consisting of 370 acres of land, is offered for sale at the very reduced price of eleven dollars per acre There is some valuable white oak timber on the land, and large sea vessels may approach within forty yards of the shore. The exportation of timber and cord wood from said county to New York city, is highly recommended as a means of considerable speculation. Address "R. Y. S." or "B. A. C.", Nuttsville, Lancaster county, Va.

Oct. 31, 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $7.50 *a* 8.00—superfine Howard-st. 6.50 *a* 6.75; city mills, 6.25 *a* 6.50; Susquehanna, 6.25—Corn Meal, per bbl. 2.75—Grain, best of red wheat, 1.40 *a* 1.45—best white wheat, 1.45 *a* 1.55—ord'y to good, 1.20 *a* 1.35--Corn .42 *a* .44—Rye .43 *a* .45—Oats, .22 *a* .24—Beans, .75 *a* 1 00—Peas, .50 *a* .60—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .10—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, .24—bbls .25 *a* .26—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual —Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3 50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

ANSWERS to some of the QUERIES,

Drawn up, chiefly, by Mr. Jacon, a gentleman known to European agriculturists, as the author of a report to the British House of Commons, on the price of grain in the different countries of Europe, and inserted in the American Farmer of 4th January, 1828, at the instance of Captain Basil Hall, of the Royal Navy, then travelling through America.

By Calvin Jones, *of North Carolina.*

To Capt. Basil Hall, R. N.

Sir,—My answers to your queries, contained in the 9th volume of the American Farmer, must be necessarily brief and confined to few objects; for of many of the particulars I am entirely ignorant, and of others, my information is quite limited. So far as I go I hope to be found correct, if what I say is considered in reference to our state, (North Carolina,) and the particular section of it, near its centre, in which I reside. I shall follow the respectable example of Dr. Darlington, in the medium of communication; because, if it obtains general observation among the many whom I hope will appear to answer your inquiries, there will be shown, what I am very anxious to see, the various conditions and processes of agriculture in the different states; one correspondent will be enabled to supply the defects and omissions of another, and a mass of information will be brought together, possibly curious to you, and certainly useful to ourselves.

Query 4. [When land is brought into cultivation from a state of nature, how many times is it necessary to turn over the soil, either by digging or ploughing, before the seed is deposited in it?] Our first crop upon recently cleared land is Indian corn, or maize. Twenty years ago it was tobacco. The preparation for the corn crop is various. The most common mode, I think, after the bushes are grubbed up, and the trunks of such trees as are wanted for fence and fuel removed, and the rest belted, is to run single furrows with a plough, sometimes followed, and sometimes preceded by a coulter, at four feet and a half distance from each other; these are crossed, at the same distances, by other similar furrows. Two grains of corn in common soils, and three in good, with half a dozen peas, (*beans*, I think, they would be called in England,) are deposited at each intersection, and two inches of earth thrown over them by the foot of the dropper. This planting is commonly done in May, a month or six weeks later than in old land. In ten or twelve days the plant is up; and in as many days more it is *sided*, by running a plough without a mould board, or, which is better, a narrow winged coulter, once on each side of the row. In ten days more, the intermediate spaces are broken up by heavy furrows thrown to the corn. It is then hand-hoed. In three or four weeks it is cross-ploughed and hand-hoed again; and this completes the tillage. In old land the ploughing and hand-hoeing is commonly performed a third time. After the first crop, the peas, in all future ones, are planted in the intervals of the corn at the time of the first hand hoeing, and in more liberal quantity; but the cultivation of these is principally confined to the flat sandy part of the state. The first year's corn crop is not so good as the second, about equal to the third, and better than the fourth. After the fourth crop, if all successively were corn, the land was formerly allowed to rest every second or third year, but since the cotton and wheat culture, introduced twenty years ago, the second and third crops are usually cotton, and the fourth wheat. But there is no uniformity of practice, for we have no system, and until lately, nothing like a rotation of crops. My own practice, and that of a few others, differs essentially from any described above. Mine is to break and bed up new land as well as old; to plough on horizontal lines, as instructed by Randolph, and to plant corn and every thing else in drills as prescribed by Taylor.

The continuance of the productive power of the soil depends more on its surface form than on the exhaustion produced by the crops cultivated. Our hilly lands, as those a hundred miles from the Sounds mostly are, unless abounding in vegetable fibre and ploughed deeply and horizontally, are liable to have the soil washed away by the heavy and precipitous rains to which our climate is subject; and as neither of the preservatives I have mentioned are common here, it follows that our old fields are mostly cut into deep ravines, and the surface-soil is swept away.

To compare our agriculture in a few of its particulars with that of Pennsylvania, as described by Dr. Darlington, it may be said that buckwheat will not return the quantity sown; that barns are unusual, that the roller is never used, and but rarely the harrow; that we raise ten fold more corn than small grain; that very few cultivate grasses or have meadows; that manures are seldom made or carried out, cotton seed only excepted; that our cattle mostly range in the woods, and the chief manured spot, is the place where the cows are penned at night for milking.

Query 7. [How many bushels per acre are commonly sown of the several kinds of grain, viz: wheat, rye, barley and oats?] Cotton, 4 bushels; corn, a peck, (making some allowance for partridges and blue bugs;) and wheat 3 to 4 pecks to the acre. This last I once deemed too small a quantity, and have usually sown more; but as our mild seasons permit the plant to grow longer and tellure more than in the northern states and in England, I am not sure but our deviation from their practices is sanctioned by propriety. Wheat is sown at all times between the middle of September and the last of December, (commonly among standing corn and cotton,) but the first sown is best. The hessian fly, so destructive to the wheat crop, in some places, rarely does any injury here, and never much. The wevil has been a more formidable enemy; but since its natural history is better known, its depredations are somewhat guarded against, and might effectually be, did not our farmers, very cordially, "*hate trouble.*"

Query 8. [What is the average produce per acre of those several kinds of corn? what is it on the best land? and what on the worst land actually in cultivation?] Uplands that are considered good, produce 5 or 6 barrels of corn to the acre; but a large proportion yields a third or one half less; while our river and creek bottoms produce fifty and one hundred per cent. more. On several contiguous acres of land, never manured, I have obtained fifteen barrels to the acre. A barrel of corn is five bushels shelled, or ten in the ear. For every ten barrels of corn, a thousand weight of blades fodder is obtained, of about the same value as hay. Wheat may average eight bushels (measured,) to the acre.

Query 12. [Are shell fruits, such as peas, beans, tares, kidney beans, caravanses and others, extensively cultivated? What is the usual increase of each of these, viz: how many times does the produce exceed that of the seed, when cultivated on the field, not the garden system?] *Peas* (*beans.*) are extensively cultivated among corn; produce an abundant and valuable crop; are raised with little labour; do not lessen the corn product, and contribute to the improvement of the soil.

Query 17. *Ameliorating crops.* [Is the cultivation of these roots, or of any others, deemed or found in practice to be beneficial to the crop of corn which may be grown next in succession?] These are sweet potatoes, (*convolvulus batata,*) cotton, and peas.

Query 18. *Cotton.* [Are the necessary means provided for preserving the roots in question from the injurious influence of the frosts during winter?] Cotton is planted between the 10th and last of April, in drills, from 3 to 4½ feet distance. Three to four bushels of seed are planted to the acre, which come up in a week; and in ten days the rows are sided with a coulter, and the plants partially thinned, by chopping across with a narrow hoe. In two weeks the rows are ploughed and further thinned by hand, leaving the plants at intervals of from three to six inches; and the ploughing and hand-hoeing must be repeated every two or three weeks until the last of July. The stalks grow to the height of from two to five feet. The blossoms first show themselves in the last of June, when the plants are a foot high, and they continue to put forth until checked by the frosts, which usually first appear about the middle of October. From the blossom to the maturity of the bowl is about six weeks; hence it is calculated that all blossoms which appear in August will produce cotton. The product is from four to twelve hundred weight to the acre in the seed, or one-fourth of that quantity clean. Six hundred weight may be considered the average. The machines charge one-twelfth for picking and baling. The first picking out or gathering is in September and October; the second and last in November and December. In very large crops the gathering is continued through January and February; but when it stands so late it is injured by trash and dirt, and on red soils is stained; and much of it, especially the newly introduced Mexican, is beaten out of the bowls by the rains and lost. Seventy-five pounds to the hand is about a day's work to gather at the first going over, and fifty pounds at the second. To the south and west, where the cotton is taller and has larger howls, much more is allotted for the day's work. A hand can tend ten acres; but owing to the frequent and stated workings which it requires, it cannot advantageously be made the only article of culture, but must be conjoined with some other. Whether the cotton culture contributes to the wealth and happiness of our country has been a question. It occupies so nearly the whole year as to stand much in the way of all agricultural improvements. By lessening the quantity of bread stuffs, it diminishes the comforts of living, particularly among the slaves; and this circumstance, combined with the facility with which cotton can be marketed, has lessened the fidelity and honesty of this class of people; but above all by monopolizing nearly the whole of our labour, it makes much buying necessary; and this buying habit once created, soon goes far beyond our absolute wants. Cotton also being always in demand, and a cash article, can be used in anticipation like a bank credit, adding thereby to the other occasions and encouragements it gives to expense and speculation. To these, united with other and more powerful causes, have been ascribed the pecuniary difficulties which at present oppress a considerable portion of our farmers.

Query 33. [Is there any upland or dry pasture, fit for the rearing or fattening sheep.] These exist in a state of nature in much of the low country, within a hundred miles of the sea, to any desirable extent. Sheep require no feeding: Indeed, they are injured by grain. They need only occasional salting and penning to keep them gentle. Few persons have ever kept sheep with a view to the sale of meat or wool, but flocks of a hundred head are not unfrequent, and there are many of two or three hundred. Their wool, mixed with cotton and manufactured in families, affords winter clothing for a considerable portion of the inhabitants. The fleeces weigh, when clean, two pounds and a half on the average. The savannahs and open pine woods, in many of the lower counties, are very extensive; and a sheep-ranging privilege for thousands of bead would cost little or nothing. There can be no doubt that keeping sheep on a large scale, would be a very profitable business; but the experiment must be made by persons from abroad; for as our lands and negroes afford to most a competency, without the pain of exertion, or the hazard of enterprise, few motives can be found powerful enough to overcome our habits, or change our pursuits. Mr. David Wallace, who once lived on one of the Bank islands that form the Sounds on our maritime border, was said to have had more than a thousand sheep ranging there, giving no trouble and occasioning no expense. If I remember rightly, Mr. Gaston made a statement to that effect in the legislature of 1806, on introducing a bill to prevent hogs from running at large on Portsmouth Island, on account of their destroying lambs, "subsisting upon them," as he remarked, "almost entirely for many weeks of the year." I know that sheep were very abundant on that island in 1814, when Admiral Cockburn, with a British force, made a descent upon it to obtain provisions for his fleet. Besides cattle and sheep in great abundance, I recollect to have seen a gang of about sixty wild horses. All the banks along the whole border of North Carolina, for three hundred miles, would afford excellent sheep range. The bank mutton, in the Newbern market, is considered superior to any other. Here, and over the whole low country, sheep are subject to no diseases, and liable to few casualties. My own observation (which has been tolerably extensive and continued for more than thirty years,) warrants the belief, that few, or no places, are more healthy for the human species, as well as brutes, than what is called *the high dry piney woods*, in the low country of Carolina, provided they be not in the immediate vicinity of creeks and marshes. The inhabitants have few diseases, and rarely any of a violent character.

(*To be concluded in our next.*)

SALIVATION OF DOMESTIC ANIMALS.

Mr. Skinner, *Fayette, Ky., Oct.* 5, 1828.

In No. 28, vol. 10, of the American Farmer, (to which I am a subscriber,) there is a communication from Mr. J. W. Jeffreys, of N. Carolina, enclosing some reflections "On the Salivation of Horses," by C. S. Rafinesque, late of Lexington, Kentucky.

It is the object of this notice to correct several mistakes into which the latter gentleman has fallen, in treating of a subject about which he had no practical knowledge.

He says, no other domestic animal is liable to the excessive flow of saliva of which he speaks, and which is so extensively and injuriously known among us, but the horse and the cow, and the latter only slightly. This is not true. Hogs are quite as liable to it as cows. I have seen every hog on my farm, of all ages, amounting to several hundreds, afflicted with it at the same time. I never knew it terminate fatally in any animal but the horse.

The disorder is attributed by him, to two plants or weeds, which are not uncommon in this region, viz: the Euphorbia hypericifolia, and the Lobelia inflata. This, I apprehend, is also incorrect. The former weed abounds among us; but, as he truly states, hogs do not eat it; yet they are more subject to salivation than any animal beside the horse.—The latter weed does not grow on my plantation, nor in my vicinage, and yet my stock, especially my hogs, are annually more or less salivated.

This disorder is a very disagreeable one, and extremely injurious to our stock; one which every body can account for as they suppose, yet one which all allow to be perpetuated among them. I have no theory on the subject, but I will state a few facts which I have observed for some years.

I believe most domestic animals are subject to the disorder. Horses, cows, hogs, sheep—and even my goats, I have seen salivated.

The condition of the animal at the time, whether fat or poor, sick or well, seems totally immaterial—all being equally liable to be attacked.

The period of its arrival, and length of duration are uncertain; except that it is never seen but in warm weather—and other things being equal, the warmer the weather the worse the salivation. It lasts from six weeks to five months. It seems to be much more violent during a dry than a wet summer.

Stock, grazing on red clover of the first or second crop, on a recent harvest stubble of any kind, or on an unmixed blue grass pasture of recent formation, are not often salivated.

On the contrary, stock pasturing on red clover older than the second crop, on an old white clover field, or on pasture land of any kind very closely bit down, are very liable to be salivated.

The free use of water and of salt, will greatly mitigate the disorder.

There is a very large weed found in the corners of fences, and in other rich, untrodden spots, common among us, called the *rich* or *bull weed*, which all stock, but especially horses, are very fond of, that will mitigate the flow of saliva in a few hours, and stop it in a few feeds, if the animal has not access to whatever originally produced the disorder.

The disorder may be always cured in a day or two, by feeding the animals on any kind of grain whatever. I have seen a horse salivated and cured several times in a week, just as his food was changed.

Upon the whole, I do not pretend to know what is the immediate cause of the disease; but I am satisfied that it is produced by something taken into the stomach of the animal, and that it can always be cured in a few days at farthest, by resorting only to nutritious and healthy food. It seldom produces death, except in aggravated cases, attended with great neglect. I do not think it is attended with pain, nor even by soreness about the mouth or salivary glands, but produces its effect by a perpetual wasting away of the principle of life. It unquestionably produces no constitutional injury; for all your gourmands know the excellency of our beef; the most patriotic citizen in St. John's Colleton will testify to the lusciousness of those swine which have become his abomination; and I doubt not Mr. McD*****, himself, rides a blood horse exported from Kentucky by the Downings, in his circuits through his district. If you think it of any consequence, you can use these remarks, which are of no other value than as they may correct errors, which are given dignity to by being circulated in your paper.

Your obed't serv't, B.

FATTENING SWINE.

According to the opinion of the Rev. Mr. Elliot, the best time in the year to shut up hogs to fatten them, is the month of August. I rather prefer the month of September, when it may be depended upon, that they will not suffer at all by the heat in their confinement; and there will be time enough to make them fat, before the weather becomes extremely cold.

He that attempts to fatten his hogs in winter will be a loser; for it has been found by long experience, that they do not gain in their flesh near so fast in a frosty, as in a temperate season. I therefore take care to get them fit for the knife by the beginning or middle of December, and I should choose to kill them still earlier, were it not for the advantage of keeping the lean part of the pork for some time without salting; as it most commonly may be done by exposing it to frost, in the coolest part of a house.

But a very important question is, what food and management is best in fattening swine? Peas answer well, when the price of them is low. But I am constrained to give the preference to Indian corn. Let them be fed in September with green ears from the field. There is nothing they will devour more greedily than this corn, and even the cobs with it.

In Indian harvest, the unripe ears should be picked out and given to the hogs that are fatting, without delay; or as fast as they can eat them; for it will do them four times as much good in this state, as it will after it is dried, it being difficult to dry it, without its turning mouldy or rotten; so that they will scarcely eat any of it in this state, unless they be kept shorter of food than fatting hogs should be. After the unripe corn is used, that which is ripened must be given them.

If it be thought most convenient to feed them with corn of the preceding year, it should not be given them without soaking, or boiling, or grinding it into meal. For they will not perfectly digest much of the hard kernels, it being often too hard for their teeth. It has been thought by good judges, that the corn will be at least a sixth part more advantageous to the swine for soaking it in water. But there is, if I mistake not, still more advantage in grinding it. What new corn is given them may be in ears, as it is not hardened enough for grinding. I know of nothing that will fatten hogs faster than a dough of meal and water. But as this is expensive food, the dough may be mixed with boiled potatoes, or boiled carrots. They eat these mixtures as well as dough by itself; and it appears to make no material difference in their fattening. In this mixture, barley meal will answer as well as Indian; which should be attended to in our more northern parts, where two bushels of barley may be as easily raised as one of Indian corn. Both kinds of meal I have found to be a good mixture with boiled potatoes; but it should by all means be a little salted to give it a good relish.

While hogs are fatting, little or none of the wash from the kitchen should be given them. Their drink should be fair water, which they relish better than any other drink, and of which they will drink a good deal, when they are fed only on corn, or stiff dough.

To prevent measles and other disorders in hogs, whilst they are fatting, and to increase their health and appetite, a dose or two of brimstone, or antimony, given them in their dough, is useful, and should not be neglected.

Some change of food may be advisable, in every stage of their existence, as it always seems to increase their appetite. But while they are fatting, laxative food in general should be avoided, as these animals are seldom known to suffer by costiveness, especially when they are full fed, but often from the contrary disorder. If they chance to be costive, a little rye will help them.

In feeding, steady care should be taken that not one meal should be missed, nor mistimed, and their water should never be forgotten. They should always have as much food as they will eat up clean; but never more than that quantity, lest they defile it, and it be wasted. A little at a time and often, is a good rule.

If their skins be scurvy, or inclined to manginess, a little oil poured upon their backs, will cause it to come off. And some say, a small mess of rye, now and then, as a change in their food, is good against these and other disorders.

If the issues in the fore legs should chance to get stopped, every attempt to fatten them will be in vain. These, therefore should be watched; and if found to be stopped, they should be rubbed open with a corn cob.

Rubbing and currying their hides very frequently, is of advantage to keep up perspiration. It is grateful to the animals, as well as conducive to their health and growth. A proper scrubbing post in the middle of their pen will not be amiss. And during the whole time of their fatting, they should have plenty of litter. They will lie the more dry and warm, and it will be more than paid for, by the increase of good manure.

When hogs are killed, a single one should not be left to live alone in a pen. He will be apt to pine too much after his former companions. And in cold weather he will suffer for want of lodging as warm as he has been accustomed to.

The fat of pork should be plentifully salted with the best and strongest clean salt. It will take three pecks for a barrel. The pork should be kept continually under pickle: for if it be exposed ever so little to the air, it will become rusty and unpalatable.

Boiled or steamed clover hay will serve to keep hogs during winter, but the addition of potatoes or carrots, boiled or steamed with the hay, will be an improvement.

It is declared, that food, when soured by a proper fermentation, is much the best for fattening swine, and that one gallon of sour wash will go as far as two of sweet for that purpose. Mr Young says, that the best method of feeding all kinds of grain to hogs, is to grind it to meal, and mix it with water in cisterns for that purpose, at the rate of five bushels of meal to a hundred gallons of water.—[*Deane.*

Agricultural Habits and Papers of GENERAL WASHINGTON.

Extract of a letter from the Rev. Jared Sparks to Judge Story on the nature of Gen Washington's papers which Mr. Sparks proposes to publish.

There was no station in which Washington took more delight, or the duties of which he discharged with more zeal and activity, than that of a practical farmer. His achievements in this walk were prodigious. It may be fairly questioned, whether any other individual in the country, not excepting the most industrious and enterprising, who has been devoted to this pursuit alone, has ever accomplished so much. He was commander of an army, and at the head of a nation, for a few years only at a time, but a day never passed in which his farm was out of his mind. During the whole war he was planning improvements, directing them, and often writing letters of minute instructions to his manager. While president of the United States, it was his standing custom to write weekly, and to receive weekly returns, in which he required great particularity and exactness in specifying occurrences, and the employment and progress of the labourers. I have before me a volume of press copies of letters; written in one year, during the presidency, to his manager and overseers. Some of them extend to several pages, and they average more than one a week.—They are written in his own hand, with its usually fair and regular character, and bear every mark of having been as much studied in expression and style as any of his compositions. In some cases, and probably in most, they were written and copied out by himself before the press impressions were taken. Such was his habit for years amidst the burden of his public cares. There is also before me a curious agricultural document, dated four days before his death. It is a manuscript pamphlet of twenty-four folio pages, written in a close hand, containing instructions to his manager for the cultivation of three farms, on the estate at Mount Vernon, the following year. Each farm was divided into lots, which were numbered. In the pamphlet, very full instructions are given how to cultivate *every lot* in the three farms during the next year, stating the crops, with remarks on the soil, the products of former years, and the results of former experiments. Washington died, you will recollect, in the middle of December, and this pamphlet, drawn up evidently with much labour and reflection, was already prepared to be handed to the manager at the beginning of the year, prefaced by a letter of general directions on the importance of method and forethought in farming operations, and this, notwithstanding he was himself to be on the plantation, and exercise a daily supervision.

These instances are mentioned only as examples; they indicate the habit, and it is unnecessary to add more. For a time he kept an agricultural journal, and was engaged in experiments on a rotation of crops, noting down for a series of years the crops of each lot, with remarks on the comparative success of different rotations. He was at much pains to stock his farms with the best breeds of animals, and his grounds were adorned with rare and curious trees and shrubs, collected from various parts of the United States, and from foreign countries. His correspondence with Sir John Sinclair, Mr. Anderson and Arthur Young, on agriculture, has been printed. It is not my intention to select much for publication under this head, but such papers will be included, and such illustrations appended, as will exhibit in their due proportions the character of Washington on his farm, and his attention to the humbler concerns of life.

McCORMICK'S PLOUGH.

[It had been our intention to publish along with the report of the committee on Implements of Husbandry made at the late Cattle show—the following observations on McCormick's plough, which we find in Vol. 1, No 2 of "the American Journal of Improvements in the Useful Arts and Mirror of the Patent Office."

We are desired to state further, that these ploughs may be had of Sinclair & Moore, who have made arrangements with the patentee to manufacture and vend them, in a variety of sizes, at their agricultural repository, Pratt street wharf, Baltimore.]

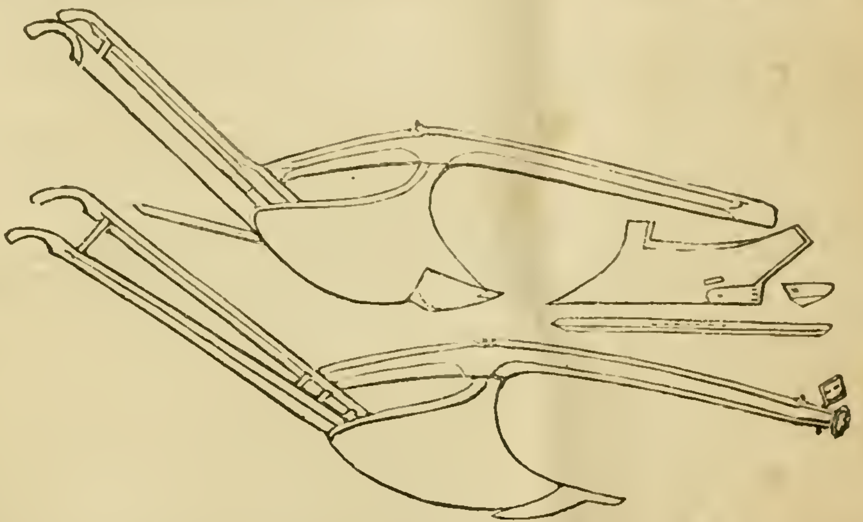
Baltimore, October 17, 1828.

To the committee appointed by the Agricultural Society of Maryland, on Implements of Husbandry.

Gentlemen,

In compliance to your request yesterday, to prepare a description of my plough, reported upon, I have thought it advisable to refer you to the American Journal, in which a drawing is given, and a short sketch of the improvements. The editor of the American Farmer, will also give a drawing as above mentioned. All of which will be inserted under your reports.

Very respectfully yours, &c.
STEPHEN McCORMICK.



This plough is in great reputation and use; the only reason why we have not given a specification of it at large is, that having given Davis's at length, it would take up too much room. There are moreover a great many points of resemblance between the two; a general reference, therefore, to the drawing of it is given, in connexion with the following extracts from the original specification itself—which show that the improvements consist chiefly in the following particulars, viz.

1. In the shape of the bar and point, as well as the shoe or fender to be attached to a wrought or cast landside.

2. In the face of the mould board, and the method in which it is wrought, the front edge of the mould-board, the curve or projection over toward the landside. The method of making the hole for the brace or bolt through the neck from the hind part, or a ketch, without a hole through; also the ketch at the bottom of the mould-board to fasten the share on, the concave groove for the handle, and one hole for a bolt to fasten it and the method of *hardening* the front edge and wearing part of the mould-board.

3. In the method of fastening the wrought share to the cast landside and mould-board by ketches or projections; the fender or shoe, the concave groove in the landside for the handle to fit it, the structure of the fore part of the mould-board, for the cast share, and self-sharpening and advancing point, the brace bar for the bar to rest on, and the method of fastening the bar or point, the bar or point and its position upon an inclined plane, and the shape of the share.

4. Putting the beam on the outside of the handle, the manner in which they are fitted together, and fastening them with a staple and two screw nuts, the adjusting of the beam on the top of the neck of the mould-board, and fastening it with one end of the brace or screw bolt, both coming from the hind part, and through the neck of the mould-board, and the plan of fastening the handle to the mould-board with one screw, and raising and lowering the beam at the handle.

5. In the shape of the sword and front edge of the coulter, and the method of fastening with the stirrup.

LARGE CORN.

Linganore Mills, near Frederick,
October 27, 1828.

Mr. Skinner,

You will receive by the bearer a stalk of corn which grew in the vicinity of Fredericktown. It gives you a specimen of the fertility of our soil. I think it a curiosity, and send it to you for your amusement and that of your agricultural friends.

I am, with respect, yours, &c.
JOSEPH B. WEBB.

[The above stalk, which measures 9½ feet high, and proportionably thick, may be seen at the office of the American Farmer.]

HORTICULTURE.

FOREST AND ORNAMENTAL TREES.

J. S. Skinner, Esq., *Philadelphia, Oct.* 25, 1828.

Sir,—There is one subject which I should be glad to see more frequently discussed in your truly valuable paper, and that is, the *growing of forest and ornamental trees*. Wood, both for firing and timber, is yet so plenty, that apprehensions of want on that score are not admitted into our bosoms, and the planting of trees for ornamental purposes is but little attended to, since our men of fortune have removed their families to town for the summer. This must not be, sir; wood, in the maritime districts of many of the states is getting to be very scarce; half a century will exhibit many continuous tracts of thousands of acres, as bare of shrubbery as any part of England. As the population of our country becomes dense, our demand for wood will be proportionally increased. A hundred millions of people will require *more* than ten times the quantity wanted for present consumption. We have it in our power to prepare ourselves with an artificial growth of wood, to meet the evanescence of the natural forest. We may surround our pastures with lofty trees; we may clothe the brows of our rocky hills, and the areas of our "dismal swamps" with a growth of wood which shall meet the wants of posterity, if we but study adaptation, and arborical philosophy. You have done much for agriculture, sir; so much, that when I obtain a seat in Congress! my first motion shall be for a grant to you, as liberal as that made by the British government to Forsyth for his "composition." You have it in your power to press upon the attention of your readers, the subject introduced in this letter, to the obtainment of a great deal of useful information, and I doubt not very much to the furtherance of arboriculture.

The little attention given to the planting of trees, I attribute to the difficulties attending it. We have no treatise, strictly practical, to enlighten us, and our own judgments, (as in the infancy of every science,) unassisted by help, will carry us to lame results. To grow trees is generally supposed an easy task. We stand under the shade of the horse chestnut and oak, and because they girt some fifteen feet, and shade half a rood of earth, we fancy it is as easy to raise them as to crack one of their nuts. It is not so; the most tender species of the geranium, or the asalca, may be grown with fifty times more ease than many of the trees that shoot an hundred feet into the air. An author, quoted by Deane, says, "Not one in a hundred of the acorns planted by me in the month of October, came up." I planted fifty horse chestnuts; two of these only vegetated.

The great difficulty is to get the seeds of trees up; some lie a year in the ground before they sprout, some a few weeks only. Some should be sown in the fall, and some in the spring. Some trees like a wet soil, some prefer the driest; some will grow in an atmosphere highly impregnated with saline qualities; to some such properties of the air are instant death. Now, sir, in order to bring out your friends and readers, I propose the following queries:

I. *What is the best manner of growing*—

1. The maple, (*acer.*).
2. Horse chestnut, *Æsculus.*)
3. Birch tree, (*Betula.*)
4. Common chestnut, (*Castanea.*)
5. Beech tree, (*Fagus.*)
6. Ash, (*Fraxinus,*)
7. Walnut, (*Inglans.*)
8. Tulip, *Lircodendron.*)
9. Mulberry, (*Morus.*)
10. Pines and firs, (*Pinus*)
11. Buttonwood, (*Planus.*)
12. Oaks, (*Quercus.*)
13. Locusts, (*Robina.*)
14. Elm, (*Ulmus.*)

If they are best raised from seeds, at what time, with what preparation, and in what manner should these seeds be sown, and what should be the after-culture of the seedlings? If there be a better method than by sowing the seeds, what is it?

II. What trees are best calculated for my residence? It is within a mile of the sea, upon an eminence, where it receives the winds that sweep the whole expanse of the Atlantic. The soil of a portion is thin, sandy, but free; of another portion, loamy and free; a third, swampy.

An answer to these queries is respectfully requested. Nothing can excel the importance of the subject. It is in our "maritime frontier" where the scarcity of wood will be first felt; it is upon that frontier where I intend, in the ensuing spring, to put into operation the knowledge I may acquire relating to arboriculture. I doubt not I shall be able to furnish your readers with useful hints on the subject. Yours, &c. T. J. R.

(From the New York Farmer.)

ON THE CULTIVATION OF THE NATIVE GRAPE.—By Professor Gimbrede.

West Point, 22d August, 1822.

To. Dr. Hosack, President of the Horticultural Society of New York.

Sir, It is said that every man owes something to the community in which he lives. As I admit the truth of this obligation, it gives me pleasure to address you on the subject of *American grapes and Vineyards.*

The agricultural and moral interest of the community seems to call for such information, and if I may be permitted to offer an opinion, the results of my own experience and observations in France, and in this my adopted country, after a residence of twenty-six years, I shall deem myself happy if I can give a useful example to follow.

I well know the many respectable opinions already published on that subject, and, therefore, wish to support by facts only, the feasibility of improving your native grapes, and to help to counteract the most injurious of all prejudices, namely, *that you must plant your vineyards in America, with the vines of the continent of Europe!* and thereby trample under foot, and sweep off from the surface of this *highly favoured land*, with a culpable indifference, some of the most valuable varieties, many of them quite unique, *which the great God of Nature kindly provided these United States.*

Allow me to say, that such facts as these are altogether unreasonable, and, therefore, expect much from your patriotic and scientific association, in protecting and diffusing a true knowledge of your internal agricultural resources. I cannot pass unnoticed, the prevailing idea that the land of vineyards are the southern and western states. I hope I shall be permitted to add, come and see a flourishing one on the banks of the *beautiful Hudson!* Moreover, many who have attempted to plant their vineyards in that section of our country, have not been always successful, and, therefore, have abandoned it.

I shall point out at some other time, the causes of their failure in this country. Every farmer wishing to cultivate vineyards, ought to know this fact, that in Europe there are not two counties, sometimes not even two fields, that will ever produce the same reputable wine, planted with the same stock; and if planted here, you certainly could not expect to be more successful; and if made here with the vines of Europe, you could not call it a real American wine: therefore, what I should say would constitute a real American wine, would have a distinct character in the taste and flavour—a pleasing variety for the table—a *non-such,* made with the best varieties of the Fox grapes improved by culture. Such wine would soon find its way to Europe, and command a high price.

On a subject like this, so important, and on which volumes have been written, I know not where to stop my remarks, and can only hope to awaken the public interest on their own resources and comforts.

Having made it an amusement this seven years past, to insure some of the native grapes, I have obtained several very valuable varieties from my seedlings, and have also much improved others by culture. The nursery which I have at present at West Point, may enable me to plant two acres next season.

I wish it to be perfectly understood, that I am an advocate for some few of the varieties of the European grapes in our gardens only for the table, in addition to the Isabella and a few others of this country, which not only are good for the table, but are excellent to make wine.

You will please to accept some few of the American grapes and others, for the Anniversary Dinner of the Horticultural Society of New York, but have to send them before the full development of the saccharine principle; but if you should be desirous of viewing them when fully ripe, it would give me much pleasure to furnish you with some.

Receive, sir, the assurances of my esteem and high consideration,

THOMAS GIMBREDE.

A Profitable Tree.—Mr. Samuel R. Johnson of Charleston, informs us that he has this year received the sum of $49 29 cts. for the produce of a single plum tree, of the *White Gage* species. The tree is but six years old. [*N. E. Farmer.*

RURAL ECONOMY.

(From the Franklin Journal.)

AMERICAN PATENT.

For an improved mode of constructing Breakfast and Dining tables; Peter Baker, Worthington, Franklin county, Ohio, August 6.

The dining table is to be circular; in other respects it may be like the ordinary dining table. A second circular table, or platform, precisely like the top of an old fashioned round tea table, is to be placed on and over the centre of the dining table, it being kept in its place by a pivot, or axle, upon which it turns: This centre, or upper table, is to be sufficiently small to leave room for plates, knives and forks upon the lower table, whilst the various dishes are placed upon the upper one. The object is, to enable each person, by turning the upper table, to bring before him the dish which he desires.

Common Method of making Vinegar.

To every gallon of water put a pound of coarse Lisbon sugar; let the mixture be boiled, and skimmed as long as any scum arises. Then let it be poured into proper vessels; and when it is as cool as beer, when worked, let a warm toast, rubbed over with yeast, be put to it. Let it work about twenty-four hours, and then put it into an iron-hooped cask, fixed either near a constant fire, or where the summer sun shines the greater part of the day; in this situation it should not be closely stopped up; but a tile, or something similar, should be laid on the bung hole, to keep out the dust and insects. At the end of about three months (something less) it will be clear, and fit for use, and may be bottled off. The longer it is kept, after it is bottled, the better it will be. If the vessel containing the liquor is to be exposed to the sun's heat, the best time to begin making it, is in the month of April.

[*N. Y. Farmer.*

LADIES' DEPARTMENT.

FEMALE EDUCATION.

(Continued from p. 261.)

Evils of a Rapid and Irregular Progress in Education.

We shall submit a few observations on the desultory and imperfect manner, in which the pupil is hurried through what she has been led to consider a probationary state, namely, the period allotted to instruction. It would appear from the course which most pursue on this occasion, that they deem the attainment of knowledge of so *positive* a nature, that, like other commodities in market, it can be vended and obtained in parcels to suit purchasers, just as time, convenience, and opportunity serve. Now, as education does not consist so much in any particular acquisition, as in the right ordering and training of the minds of youth, so as to impart a habit of correct reasoning, and a method of pursuing knowledge to the most advantage, the very principle sought after, by a systematic course of knowledge, is by this means lost sight of. Every thing that is valuable in character—decision, a resolution to accomplish whatever has been begun—in short, all that goes to make up the individual, and upon which her future happiness and respectability eminently depend, must be given to what may be termed the *forming* stage of life. The principles then implanted, send down their roots to the very sources of existence, and are interwoven with the moral and intellectual nature of the being. And is this the period in which parents are to vacillate, and children be left to the guidance of a capricious and ever-changing disposition? When every sail is to be set in order to catch the gale, which is to speed the youthful voyager onward, ought the season and opportunity to be lost? Ought not the interruptions to be as few as possible, and should not every occasion be seized to quicken the enthusiasm, and to point to the goal, which the youthful aspirant should ever hold in view?

An association, once established in the mind, is the more difficult of renewal, the more often it is broken. Interruptions are to be deprecated, as not only having a tendency to impair the intellectual energy, but to establish a habit in after life, which, whether connected with domestic or other duties, must tend to the unhappiness of the individual, and of those around her. In the first place, the positive acquisition of any good, throwing aside what some have termed the chance of contingencies, must be in a direct ratio with the quantity of industry brought into requisition, in a given time. The intervals of relaxation must be truly such. They must have a tendency to impart additional physical and moral energy. Even in their amusements, the athletæ of the ancients, kept in view the *business* to which they were trained. In like manner, the amusements of youth must be such as impart a healthful energy and enthusiasm. In this point of view, the sports of youth may be considered as useful preparations, for hours of serious and laborious study. We must, therefore, distinguish between those intervals of ease, so essential to elasticity of mind, and that desultory mode of pursuing a valuable object, which, as the poet says,

> ————"gives no light,
> But rather darkness visible."

Is it possible parents so far deceive themselves, as to imagine that those occasional glimpses of *terra firma*, will be of any positive advantage to the pupil? In labouring up the acclivity, even in our pauses we must be sure to secure what we have gained, otherwise, by the natural proneness to descent, the ball will speed downwards. It is only when the hill is fairly gained, that we can pause with some complacency of feeling.

No truth ought to be more thoroughly impressed upon the minds of youth, than that nothing excellent can be obtained without assiduous application. Next to a desultory manner of study, is the disposition, so prevalent in youth, to miscellaneous reading. Novelty in itself is so attractive, throughout every period of life, that we must take care, the love of it does not run counter to valuable purposes, which, on our first setting out, we propose to ourselves; while it may be reasonably indulged, as a useful and healthful excitement to the mind, it should be made subservient to virtuous and noble ends. It is an excellent condiment, but a bad food; and he who proposes to himself

> To lean the book 'gainst pleasure's bowl,
> And turn the leaf with folly's feather,

will find himself more frequently dipping into the bowl than into the volume. This fondness for what may be termed the *piquante* in literary matters, produces the same effect upon the mind, that a variety of dishes do upon the stomach, tending to vitiate and destroy that wholesome relish, which it would otherwise have for what is solid and valuable. Indeed, in all our pursuits, some one system must be laid down and pursued. Without this, the mind, like an Obidah, in endeavouring to blend the useful with the agreeable, is apt to wander forth into nooks and windings, and that which was originally proposed as a temporary digression, becomes, in a short time, the sole object of pursuit, excluding all others, so that the student is herself astonished, when she reverts to the object, which she had in view, on her setting out.

If youth, then, be naturally prone to these aberrations, how truly unfortunate is it, when the parent, instead of skilfully directing the enthusiasm to one object, suffers it to be dissipated in a thousand aimless and unprofitable employments. On this occasion, the failure of making any positive advance in knowledge, is not the greatest injury sustained. An evil of greater magnitude, influencing the individual to the latest period of her life, is, that by this means, she acquires a capricious and vacillating character. The energies of the mind become weakened, just as they are directed to many objects. But, so far from being conscious of this, the parent hails the little hot-house exuberances of imagination, proceeding from these causes, as unerring indications of a future harvest!

"A man," says Cowper, "who has a journey before him, twenty miles in length, which he is to perform on foot, will not hesitate and doubt, whether he shall set out or not, because he does not readily conceive how he shall reach the end of it, for he knows by the simple operation of moving one foot forward, and then the other, he shall be sure to accomplish it." It may furthermore, be observed, that in thus putting one foot forward, and then the other, our progress is not to be estimated, numerically, by the number of steps which we have taken. It is by one step succeeding another, uninterruptedly, that we gain an accelerated speed, the preceding step giving an impetus to that which follows. It is, in fact, with the mind as with the body—nothing is so truly fatiguing as a sauntering gait.

(To be continued.)

REPUTATION.

From "The Dutchess of Malfy," a Tragedy—By John Webster.

Upon a time, reputation, love and death,
Would travel o'er the world; and 'twas concluded
That they should part, and take three several ways.
Death told them, they should find him in great battles,
Or cities plagued with plagues. Love gives them counsel
To inquire for him 'mongst unambitious shepherds,
Where dowries were not talk'd of,—and sometimes
'Mongst quiet kindred that had nothing left
By their dead parents. Stay, quoth reputation,
Do not forsake me,—for it is my nature,
If once I part from any man I meet
I am never found again.

LINES ON REVISITING A SCHOOL.

Who but will sigh, while pacing oft alone
O'er the same walks, careless where once he strayed
With playmates—many of whom a deeper shade
Than of your bowers hath wrapt!—Yes, many are gone
The dark, the silent, phantom flitting way
Which lies beyond the grave! for ever flown
From this vain world, from fortune's smile or frown.
Ah! fancy! meteor shining to betray!—
Thy loveliest gleams were but the rainbow hue
That flies a parley, melting from the sight!
'Tis thus with all the flowers of man's delight!
With all that sparkle in life's morning dew:
Hope after hope bestrews the wintry gale,
Till the bare stem be left, a mourner in the vale!

SPORTING OLIO.

Courses de Chevaux—24 Octobre.

(Concluded from p. 263.)

Pour aller au lieu des courses on traverse la partie de Baltimore, appelée l'ancienne ville. C'est là que stationnent les plus gros navires qui soient au port. On peut ainsi en passant reposer agréablement son regard sur ces châteaux voyageurs qui rapprochent les mondes, et dont les divers pavillons flottent confondus en signe de paix et d'union. L'hypodrome est tout-à fait dans la campagne: on arrive par un chemin montueux à un vaste enclos où sont élevés deux ou trois édifices champêtres et quelques tavernes où le peuple, en venant aux courses, trouve le moyen de diversifier ses plaisirs. Au dessous de ces habitations se développe l'hypodrome dont la place me parait bien assise et l'étendue bien calculée. Il y a pourtant quelques inégalités de terrein qu'il serait bon de faire disparaître, comme aussi quelques arbres de haute et de petite futaie qui sont répandus çà et là dans l'enceinte et qui dérobent parfois aux spectateurs la vue des chevaux lancés dans l'arène pour disputer le prix. Cela est si vrai que les cavaliers réunis sur un point pour voir partir les coureurs sont obligés, pour les suivre de l'œil, de se transporter sur d'autres points pendant les divers tours de chaque épreuve, cequi, du reste, n'est pas sans inconvénient pour les personnes à pied et même pour celles en voiture qui se trouvent dans l'intérieur de l'hypodrome. Il m'a semblé, d'autre part, qu'il y avait insuffisance dans les mesures prises pour la sûreté publique. Le lieu réservé aux coureurs, quoique fermé de droite et de gauche par une barrière en bois, n'est pas à l'abri des envahissemens. La ligne de démarcation est dépassée à tous momens par la foule et surtout par les enfans qui ordinairement plus curieux que les personnes agées se portent avidemment au devant des chevaux qui parcourent l'arène, pour les examiner de plus près et pour jouir largement du spectacle. Dans les autres pays du monde où j'ai vu des courses, les barrières ne sont pas autres que celle dont je parle ici, mais il existe entre les acteurs et les spectateurs un cordon mobile qui imprime un tel respect qu'on n'est jamais tenté de le franchir: je veux parler d'un piquet de gendarmerie. Quoique ennemi déclaré du despotisme et de l'arbitraire, je ne puis m'empêcher de reconnaitre l'utilité de ce corps. D'ailleurs des soldats-*citoyens* ne sauraient offusquer le regard d'un homme libre.

Après ces détails sur les courses en elles-mêmes et le lieu où elles ont été faites, je suis naturellement amené à parler des circonstances qui les ont accompagnées et qui ont jeté sur elles un éclat, bien propre à effacer à mes yeux ce qu'il pouvait y avoir de défectueux dans les dispositions locales et dans l'indulgence dont on a usé pour le cheval gratifié du prix de 2000 francs.

On a joui durant ces trois jours d'un tems à souhait. Les vents retenaient leur haleine, la chaleur était douce, et le ciel chargé de quelques legers nuages qui en voilant un peu le disque du soleil amortissaient le feu de ses rayons. C'étaient de belles journées d'automne, telles que j'en ai vu sous le ciel de l'Italie et sur les bords enchanteurs de la Brenta où je me trouvais l'an dernier précisément à cette même époque. Aussi ces jeux avaient-ils attiré, principalement le second jour, une foule très-nombreuse de curieux. La route était couverte d'équipages et de chevaux élégans. Toute la bonne société, toute la belle population de Baltimore y était accourue. Les dames avaient quitté leurs occupations légères et leurs plaisirs pacifiques pour venir prendre part à ce spectacle qui semble présenter quelque chose d'étranger à leur domaine. Elles paraissaient même jouir d'un grand plaisir en voyant la lutte qui s'engageait devant elles. Semblables aux divinités de l'olympe fabuleux, elles étaient sur le champ de bataille comme pour animer les combattans, et chacune prenait parti pour l'un ou pour l'autre. Comme leur nombre était considérable et leur parure élégante l'hypodrome aurait présenté un coup d'œil ravissant si elles n'avaient pas été comme entassées dans les voitures qui en occupaient l'intérieur. On aurait dû, à mon avis, leur savoir un peu gré de leur présence, et conséquemment leur affecter une place distinguée qui les mit à même de jouir du spectacle de la course entière, et où elles eussent été à l'abri des inconvéniens résultants du mouvement continuel des gens à cheval qui parcouraient l'enceinte en tous sens et souvent avec une impétuosité capable de porter l'effroi dans des ames tant soit peu pusillanimes. Il est de mode en France et en Angleterre d'assister aux courses: alors les dames s'y rendent en foule, mais elles y sont d'une manière convenable. De belles tentes sont dressées dans un lieu apparent, et là le beau sexe trouve une place digne de lui. Or, sans être obligés de s'imposer les usages et la magnificence des deux premiers peuples de l'Europe, les Baltimoriens pourraient bien étendre jusqu'au lieu des courses les attentions et le respect qu'ils ont généralement pour les dames dans les salons, les spectacles et les réunions publiques. Et cela n'exigerait presqu'aucune dépense. Il suffirait d'approprier un peu l'espèce d'amphithéâtre couvert qui se trouve sur l'hypodrome, afin d'y placer convenablement celles qui voudraient assister aux courses de chevaux. Hier, par un contre-sens inouï, cet amphithéâtre était occupé par une foule de jeunes gens, tandisque les dames accumulées dans l'intérieur de l'hypodrome ne jouissaient que très-imparfaitement du spectacle qui les avait attirées.

Je suis persuadé que le manque de fonds dans la caisse de la société des courses a été jusqu'ici le seul obstacle à l'exécution de la mesure que je viens d'indiquer, car on trouve à Baltimore toutes les idées, tous les sentimens nobles et délicats. C'est une ville où le goût est pur et la politesse exquise. On y voit également la franchise bretonne et les bonnes manières du faubourg St.-Germain. Si l'on peut juger de l'avenir par le présent, ce peuple et tous ceux des Etats-Unis iront loin. Leur existence politique ne date que de quelques années, et déjà ils se sont élevés à un degrés de prospérité incroyable. Le Cygne de Mantoue dit que l'Etablissement de la Nation Romaine ne se fit que peu à peu, et qu'il exigea les plus pénibles efforts. Si les Américains des Etats-Unis ont un jour un poète épique, celui-ci ne pourra pas tenir le même langage. Pour chanter leur naissance, leur éducation, leurs travaux et leur gloire il n'aura qu'à paraphraser ces paroles du prophète David:

Exultavit ut gigas ad currendam viam.

L. L. P.

KOULI KHAN.

J. S. Skinner, Esq. *November* 3, 1828.

Sir,—I have called upon my memory for its recollections respecting the horse called Kouli Khan, and it reminds me that there was a horse of that name, owned and bred by the late H. W. Pearce, Esq. Upon application to his son, Matthew Pearce, Esq., he says that this horse was got by Col. Edw'd Lloyd's Traveller, out of Fatima, a bay mare bred by Col. Tasker, and which mare his father purchased from the Colonel when she was one year old. He says further, that Kouli Khan run, and won four races when he was four years old, at which age he was sold somewhere to the south, for $1600. He was a bay, with one white foot, a star, and snip. Mr. Pearce cannot say with precision, but, connected with some recollections, thinks he must have been foaled about the year 1777. Without being certain, he thinks the horse was sold to a person of the name of Gibbs. You have above, all the information in my power to communicate, except that the late Col. Lloyd's Traveller was got by the imported horse Moreton's Traveller, out of his fine celebrated and unconquered mare Nancy Bywell, which was also imported, and, as I have always understood, without a pedigree.

Your obed't serv't, F.

N. B. Nancy Bywell beat Mr. Delancy's (of New York,) imported horse Lath, for a large sum of guineas, four miles and repeat, over the Warwick course, Eastern Shore of Maryland. She could have distanced Lath. But this fine mare never produced a runner. F.

Remarks by an Amateur and a Judge.

It is remarkable that a person who writes generally with accuracy (Lawrence on the Horse) should commit such a blunder as to say that Childers in running 3 miles and 1413 yards in 6 minutes and 40 seconds moved 82½ *feet in a second of time*, or *nearly at the rate of one mile in a minute.* He moved only at the rate of 50 feet 2 inches and 37-100 parts of an inch, in a second, which is equal to 1003 yards and 95-100 of a yard in a minute, only 123 yards and 95-100 more than *half a mile* in a minute.

If Firetail and Pumpkin ran a mile in 1 minute 4 seconds and a half (which is hardly credible) they ran much faster than Childers in the races mentioned in this book. Allowance, however, must be made for the difference of speed in running a *long* and a *short* course—and also allowance should be made for the advantage of measuring a *straight* course, as was the race between Firetail and Pumpkin. Childers at the rate before mentioned would have run 4 miles in 7 minutes and less than a second, which is nearly half a mile faster than our best horses.

His race over the Beacon course 4 miles and 358 yards in 7½ minutes, was at the rate of 49 feet 3 inches and 21-25 of an inch in a second of time. At the rate of 4 miles in 7 minutes 8 seconds and 2238-10000 of a second. Weight not mentioned: probably 10 stone.

☞ Wanted,—The pedigree of the imported horse Archibald, who stood in the neighbourhood of Lynchburgh, about fifteen years since.

MISCELLANEOUS.

SEASONING TIMBER.

A Report on a Process for Seasoning Timber; invented by John Stephen Langton, Esq.

Mr. Langton having discovered a new method of seasoning timber, consisting in the removal of the greater part of the atmospheric pressure, and the application of artificial heat, by which the time necessary to season green timber, and render it fit for use, is only about twice as many weeks as the ordinary process requires years: he requests my opinion, first, on the influence this mode of seasoning may be expected to have on the wood; and secondly, on the practicability and advantages of the process on the large scale.

The ordinary mode of seasoning timber, consists in evaporating the fluid matter, (called sap,) by the natural warmth of the atmosphere, with the precaution of screening the timber, both from the direct action of the sun and wind, otherwise it cracks and receives much injury.

But seasoning, by the natural warmth of the atmosphere, proceeds slowly and irregularly, and much loss by decay takes place, unless the operation be conducted under the protection of a roof, to exclude rain and snow. Seasoning under cover, is still a slow, though an expensive process, for at least three years should elapse, from the time of felling the tree, to that of its being used in such training as is wanted in naval architecture; hence, a stock of timber, equivalent to four years consumption, must be kept on hand, and three years consumption must be either under cover, or suffering still greater loss, by exposure to the wet.

In the new process, the power of an air-pump is added, to draw the sap out of the interior of the wood, and the tendency of the fluid to the outside being thus increased, a higher temperature than that of the atmosphere can be applied; with less risk of causing the timber to split; consequently, the process may be completed in less time, and a few trials will show the best relation between the time and heat for the different kinds of wood.

Having briefly stated the process, I can, with more clearness; show the strong grounds on which my opinion is formed.

First, then, as to the effect on the durability and strength of the wood. In the new process, as in the ordinary one, the sap is removed by evaporation; no solvent of the woody fibre is, therefore, introduced in either case; while the sap itself, being a fluid readily affected by temperature and other agents, it seems obvious, that the sooner it is wholly removed from the wood, the better, provided the woody fibre contracts and solidifies without injury. That this may be done, is evident, from the specimens from which the sap has been extracted; they exceed the usual density of specimens equally dry, and have lost about the same weight in drying, that is lost in the usual method, with a somewhat greater degree of shrinkage. The sap which is extracted, is a nearly clear liquid, having a sweetish taste, with a very peculiar flavour, and a musty and disagreeable smell. The latter seems to proceed from a light, flocculent kind of matter, floating in the sap, affording the strongest evidence, that the sooner such matter is removed from timber, the better; and as it appears that the whole of this matter is removed by completing the process, I am of opinion the new mode of seasoning will render timber more durable than the common one, and it does not appear to be in any degree deteriorated in strength.

Secondly, the method is, undoubtedly, practicable on the large scale, at an expense not exceeding ten shillings per load, with the advantage of setting free, at least half the capital required by the common method; the advantage of rendering the living tree available, either for defence, convenience, or common use, in a few weeks after being felled, and in a state in which it may be trusted with safety; while, by the usual method, five years is not more than it is necessary to be equally free of risk from shrinkage and decay. The usual practice is, to use timber partially seasoned, in consequence of which, the sap has to evaporate, and the wood shrinks, the joints open, and the carpenter's skill in framing, is rendered nugatory; for, as timbers shrink, frames change their form, and lose their strength, and ships and houses alike afford evidence of the fact, particularly ships sent out to warm climates.

It only remains to add, that, by the new method, the whole of the natural sap is extracted at once, from the tree; it is known, by very simple means, when the whole has been extracted; the process requires only eight or ten weeks; it is more economical, and locks up less capital than the common method; and it contributes to the durability and soundness of timber framing.—Thomas Tredgold.

[*Lond. Journ.*

FRANCE.

The following interesting letter we translate from the "Courier des Etats Unis" of Saturday last:

"Paris, August 13.

"The system of monopoly pursued by our government since the reign of Louis XIV. is about to be abandoned, and succeeded by that of private speculations. The manufactories of tobacco, salt, powder and fire-arms, are now in the hands of government, and it was recently proved, in the discussion of the budget, that these articles would be manufactured better, and at much less expense, if left to individual industry. Millions are annually expended in employing officers and workmen of every description, which almost doubles the cost of this article. It is now acknowledged that 200,000 military equipments, which have been recently manufactured in the government arsenals, have cost one half more than if they had been made by Terneaux and Lafitee.

"Government also intends to abandon, by degrees, those costly establishments called Haras, where foreign horses, principally English, are kept to improve the breed of French horses. Nearly 2,000,000 are annually expended for these Haras, and the breed of our horses, so far from being improved, has, within the last fifty years, degenerated to such an astonishing and alarming degree, that France, which was formerly in the habit of furnishing foreign countries with horses, to the amount of 5,000,000 annually, is now obliged to import them from Germany, Belgium, and England, to the enormous annual amount of 20,000,000. The custom-house statements shew that, for the last five years, France has paid foreign nations more than 110,000,000, in the purchase of horses. The French army assembled at the foot of the Pyrennees in 1823, stood in need of 10,000 cavalry horses, but when they were about to pass the Bidasson, it was discovered that they could only muster 1700. Emmissaries were despatched to the border of the Rhine, and 6,000,000 were expended in the purchase of horses, which, before their arrival in Spain, were sold, for the want of judgment in the selection, for a quarter of the first cost. An English nobleman and six of his countrymen have formed a company, with a design of improving the French breed. Depots of horses will be established in different parts of France; and, as the expenses of their undertaking will be less than those of the Haras, it is thought it will be a good speculation.

"A line of coaches was established here some months since, under the name of Omnibus; an enterprise which has already become profitable to the proprietors. These carriages go every hour from one extremity of Paris to the other; each will accommodate twenty persons, which are carried as far as they wish for the trifling amount of three sous. At an early hour, you will see some of these coaches filled with labourers, who come from places about two leagues from Paris, and by this means gain at least an hour of their time. This establishment gives employment to 1500 horses, all of which were imported from Belgium." [*N. Y. Gazette.*

CEDAR TREE.

To the Editor of the American Farmer:

Sir,—The following account, which I find in the Richmond Enquirer, of an incident which is stated, I believe, to have taken place in that city, discloses the existence of a new and important property in the cedar tree. An answer, however, to the following query, which I take the liberty of proposing through the columns of your valuable paper, may render the discovery more complete, and obviate a difficulty I have heard started, as to the means of turning the accident to advantage. It is well known that there are two species of cedar, whose qualities are so different, that whilst one may be possessed of the property mentioned below, the other may be entirely devoid of it. To which of these kinds of cedar does the power of conducting the electric fluid belong.

J. S. Skinner, Esq. *Balt. Oct. 29.*

Lightning.—A house, occupied as a gig-maker's shop, was struck with lightning; It was built of wood and covered with pine slabs, and the rafters composed of *oak* and *cedar*. A cedar and oaken rafter are joined at top, a cedar piece and oaken piece making one rafter; and in putting them up, the cedar and oaken parts of the rafters are placed alternately on each of the sides of the framing —When the lightning struck, it commenced at the southern extremity of the building, and in every instance shivered the oaken parts of the rafters, and did not so much as leave a sign of its touch upon the cedar. The electric fluid actually skipped over every rafter of cedar, and rent in splinters every one that was of oak; and, although the cedar and oaken rafters were nailed together at the top, yet, wonderful to tell, even the iron appeared to lose its attractive quality, and the cedar was left untouched, the fluid seeming to evade the cedar and spend the whole of its violence upon the oaken rafters, splintering them upon one side and the other, throughout the length of the building.

It is stated in the same journal, that there never has been known an instance of a cedar tree having been struck by lightning. If this be true, it is an invaluable discovery to ladies and gentlemen who are nervous in a thunder storm.

The laurel, also, was thought by the ancients to be a tree invulnerable to, or rather sacred from the thunder-stroke. Hence a wreath of it was a proper reward for heroes. We do not know whether modern science has found any reason in this ancient superstition.

Extract of a Letter from Captain Thomas Anthony, dated.

Cant. Gibson, Arkansas T. July 1, 1828.

"Gen. Chilly M Intosh and twenty-seven of our Creek Indians have been on a buffalo hunt; and after an absence of twenty days, returned with the meat of 24 buffaloes, which they killed. They saw about 600 buffaloes, and an immense number of deer, whilst out, and would have killed more, but had not the means of bringing the meat home, every horse having as much as he could carry. A second party will go out next month, when they anticipate much sport. All the Indians are delighted with this country, which is rich and well calculated for our people, who can live well by agriculture and hunting. We have no fears of their suffering, as the crops look well. We shall have roasting ears of corn in two weeks, out of new ground cultivated since March last. We have some good gardens, with cucumbers, lettuce, radishes, plenty of Irish and sweet potatoes, beans, peas, beets, watermelons, &c. Col. Brearly will raise 1500 bushels of corn, which we have planted since I have been here."

"We have had a deputation of Delaware Indians amongst us, who claim to be the grand father of all Indian tribes. I went to our public square with them and held a talk. They presented beads and tobacco, which was received in ancient form; and received presents of the same articles in return.—All this is right; and we do not anticipate difficulty with any of the Indian tribes. We shall avoid all alliances. This has been my advice to the Indians. —There are, however, a number of Indians who do not respect the rights of any nation: that go upon a war expedition to gain the name and character of warriors, and will take any person's scalps, and run the risk of the consequences."

A GOOD EXAMPLE.

A gentleman belonging to Woburn called on us the other day, and communicated the following interesting fact. He cultivates one among nine or ten of the largest farms in that place, and this season has gone through *all his labour*, from ploughing to husking, without the use of a drop of spirituous liquors by himself, or any one in his employ. He states, moreover, that he has never suffered the least inconvenience for want of hands, and that all has gone on prosperously; there have been no disputes or complaints; but all have been industrious and happy. At the commencement of the season, he announced his intention to pursue this course, his success was doubted, and his plan looked upon as visionary. He has persevered, and now reaps his reward in a plentiful harvest, and the happiness and respect of all in his employ. The effect of this example upon the neighbourhood has been salutary, and we publish it as an act worthy of praise, and with the hope that it will be the means of inciting many others to pursue a similar course.

[*Nat. Philan.*

Formidable Number of Rats in Paris.

The report of a commission recently appointed to inquire respecting the immense swarms and depredations of rats at Montfaucon, is not a little curious. We shall extract a few particulars from the report, the details of which will be given in the *Kaleidoscope*. One of the chief obstacles to the removal of the horse slaughter house to a greater distance from Paris, is the fear of the consequences of depriving these voracious vermin of their accustomed sustenance, they picking bare to the bone the carcasses of the horses slaughtered during the day, though these frequently amount to thirty-five. The proprietor of one of the slaughter-houses contrived to stop up the holes left for the ingress and egress of the rats in one part of his establishment, which is inclosed by solid walls, having previously put into the inclosure the carcasses of two or three horses, and given the rats time to assemble. He then, accompanied by several of his men, armed with sticks and torches, entered the place and commenced an indiscriminate slaughter. By a recurrence of this expedient, at invervals of a few days, he killed, within a month, 16,050 rats. After one night's massacre the dead amounted to 2,650, and the result of four battles was 9,101. Even this can give but an imperfect idea of the immense numbers of these vermin, as the place in question occupies not one-twentieth part of the establishment, and the dead bodies of horses spread over the rest of the premises may be supposed to have attracted the rats from all quarters. Indeed, so great is their number, that they have not all been able to lodge themselves in the slaughter-houses, or their immediate vicinity; there are distinctly traced and well known paths, leading from the inclosures where the horses are killed to a hurrow about 500 yards distant. When, in addition to the plentiful supply of food afforded them, it is considered that the female rats bear five or six times in the year, and, at each birth, as stated in the report, bring forth from fourteen to eighteen young ones, we need not be surprised at their numbers, or their devastations, or that the Parissians should take time to consider before they throw these gentry entirely upon their own resources. The excess of the demand over the supply might lead to most unpleasant circumstances.

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 7, 1828.

THE LATE CATTLE SHOW.

☞ PLOUGHS AND PLOUGHING MATCHES.—We will not undertake to speak with precision of the views of the Board of Trustees in regard to this subject, but will venture to state some of the considerations which probably influence them to omit the offer of premiums for the *best ploughs and the best ploughing.* It is but too obvious that the premiums hitherto offered for these objects had not produced, or had ceased to produce, the desired effect. They had not prompted the *real practical farmers* of the country to come in with their own ploughs, gear and team, whether of oxen, mules or horses, such as are actually used in their every day operations; to exhibit in the view of the publick, the simplicity and economy of their gearing, the quickness and efficiency of their work, the skill of their ploughmen, and the docility and nice adaptation of their teams and their implements to the fundamental and most important of all agricultural processes. Yet this was certainly the *original intention* of this part of the exhibition, and this is the great result actually accomplished and displayed every year at the ploughing matches in New England, where the competitor is often the *owner and the holder* of the plough. There you may see twenty or thirty yoke of fine well trained oxen, moving with precision and steadiness; the plough which follows them is not thrown from its place by every trifling impediment it encounters; the work, as it proceeds, is every inch of it thoroughly well done. Our trustees probably thought, that, as the premiums had recently been contended for and taken, not by practical farmers, but by *manufacturers* and *venders*, some of whom are probably not even members of the society, it was as well to withhold them; and although these ploughing matches serve as a strong point of attraction and interest at our exhibition, yet we doubt whether they would be attended with any further improvement in the operation of ploughing. If any thing further be practicable, it must be by improvements in the plough itself, which really appears to have already attained the *ne plus ultra* point, in the saving of labour and efficiency of performance.

To elicit and bring into view any superiority in the construction of the plough, and to insure great animation and the utmost skill in the contest, we would suggest the following plan: Let the manufacturers or the patentees of the different ploughs, or their agents, agree each to have on the ground a one, a two, and a three horse plough, with every thing prepared to exhibit their operation; and let the winner in each case, under the award of judges to be appointed by the society, take the ploughs that are beaten by his—or, let each competitor throw in $5, to purchase a suitable piece of plate, to be taken by the winner. On the very day of our cattle show, there was one by the society of the *little* state of Rhode-Island, of which it is reported,

"The Treasurer reported that there was a balance on hand of six hundred and forty-eight dollars, and eighty cents. Last year the balance at the same time, was 442 dollars.

"Both days of the exhibition were the finest of the season. On Tuesday there were nearly *four thousand people assembled to witness the ploughing match* Except the delay in commencing the work, the whole was conducted in the best possible manner. The competitors have learned that the race is not to the swift, and they went to work as steadily as if they had the day before them. The ground, though unfavorable, was ploughed in a manner superior to any former match. *Eighteen yokes* competed for prizes, but one of which was without a driver.* Great credit is due the Committee and other officers, and to the spectators, for the good order observed on the ground. In fact the show throughout was conducted in a remarkably quiet and orderly manner.

"The Premiums were declared from the Balcony to a large crowd, at three o'clock in the afternoon, which, with the auction sale, closed the exhibition. On the whole the friends of agriculture have great cause to be proud of this occasion, and to persevere in extending the influence of the Society, which now begins to be felt upon almost every farm in the State."

☞ Two pair of fine knit woollen hose, marked R. B. were lost at the late Agricultural Fair. It is supposed they were carried off by mistake in the hurry of removing the articles of domestic manufacture. Any person having them in possession will confer a favour by sending them to the office of the American Farmer.

☞ The *Baltimore Patriot* of yesterday afternoon, says, "An express has arrived in this city with the information that the British ports have been thrown open for the importation of foreign grain, &c. Flour and grain has already consequently taken a great rise in this market."

GEN. STEPHEN VAN RENSSELAER.

This estimable man at present holds a most enviable situation. After a long life, devoted, with the most generous disinterestedness, to the common good, and with the greatest activity, to the public welfare, he has retired from the troubles of politics, and the business of party strife, into the shades of private life, where he enjoys the consolations, peaceful as his own mind and refreshing as his own charity, which ever result from a well-spent life. Some months ago, Mr. Van Rensselaer signified his wish not again to serve as a member of congress, but so anxious were his constituents that he should not retire, and so strenuous were they in their solicitations for him to consent that his name should once more be used, that he partially assented to their desires. While in uncertainty whether to consult his own wishes, or yield to the earnest and honest entreaties of his friends, his health became affected, and forbade his acceptanre of a place, the labour of which might increase his infirmity, and to which he might not be able to give that attention which its importance deserves.

But, though Mr. Van Rensselaer has retired, or will soon retire, from public offices, he yet continues his care and attention to internal improvements, education, and science, to the advancement of which he has, with a generosity and nobility of soul, seldom found in man, so largely, so actively, and so efficiently contributed, and which will ever secure to him public gratitude and private esteem. Of him, it may be said—The flowers which bloom on his grave will be watered with the tears of virtue, and the hand of patriotism will raise his monument.

[*Albany Daily Adv.*

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* This means a man or boy to lead the oxen, besides the ploughman.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c.; Brown's Patent Vertical Wool Spinners; Shovel and, Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36 Pratt-st., Baltimore.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,

No. 4, Bowly's wharf.

TOBACCO.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahaonock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $9.0 *a* 10.00—superfine Howard-st. 8.25 *a* 8.50; city mills, 8.00 *a* 8.25; Susquehanna, none—CORN MEAL, per bbl. 2.75—GRAIN, best red wheat, 1.75 *a* 1.85—best white wheat, 1.90 *a* 2.00—ordinary to good, 1.70 *a* 1.85--CORN, old, .48 *a* .50—new corn, in the ear, 1.75 *a* 2.00—RYE, bushel, .50 *a* .52—OATS, .22 *a* .24—BEANS, .75 *a* 1.00—PEAS, .50 *a* .60—CLOVER SEED, 5.00 *a* 5.50—TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .10—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia .9 *a* .10½—WHISKEY, hhds. 1st pf. .25 *a* .26—bbls. .26 *a* .28—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—BACON, hams, Baltimore cured, .10 *a* 11: do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.87½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

MARKETING—Apples, per bush. .50 *a* .75; Pears, per peck, .25 *a* .37; Butter, per lb. .25 *a* 31¼; Eggs, dozen, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10; Onions, bush. .50; Beets, bush. .50; Turnips, bush. .50; Partridges, .8 each; Canvass-back Ducks, 1.00 *a* 1.25; prime Beef on the hoof, 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

ANSWERS to some of the QUERIES,

Drawn up, chiefly, by Mr. Jacob, a gentleman known to European agriculturists, as the author of a report to the British House of Commons, on the price of grain in the different countries of Europe, and inserted in the American Farmer of 4th January, 1828, at the instance of Captain Basil Hall, of the Royal Navy, then travelling through America.

By Calvin Jones, *of North Carolina.*

(Concluded from p. 266.)

To Capt. Basil Hall, R. N.

Query 68. *Horses.* [Of what description are the horses employed in agriculture?] Our horses have generally more or less of the Arabian or English blood, from importations to this state, directly, but more generally through Virginia. I know of no distinction of breeds for different uses. Our best plough and cart horses are of the racing blood; and though a horse may be sorry enough in appearance, as ours often are, owing to hard labour and bad raising, yet if Janus blood can be traced in his veins, we are sure of finding a spirited, nervous, enduring animal, fit for all service. We have, it is true, a cold blood strain, nearly extinct however, from I know not what source, that has gouty legs, long mane, and stupid eyes, that can scarcely be flogged into motion in a plough, but yet is pretty sure to run away with a gig. They have no generous qualities in their tempers, and few valuable ones in their physical powers. Forty or fifty years ago wild horses were common in some of the low counties; but they are unknown now, except on the banks, and there they are not numerous. These last I have ridden. They are very small, mettlesome, and hardy; are caught and tamed in the spring, when poor, at about three or four years old. They are not much used on the banks, where nothing beyond gardens are cultivated; and on the main are purchased rather as curiosities on account of their diminutive size. But the best horses are gradually giving place to mules and oxen for farming purposes.

Query 71. *Labour of horses.* [How many hours in the day can horses work at field labour?] Horses are usually worked in the plough from half an hour before sunrise to half an hour after sunset, with an intermission of two hours at mid-day. This, at the season in which I write is twelve hours and a half labour; but they are allowed two days rest in the week, and even with his indulgence, they become poor by the time the last work is given to the corn and cotton crops in July. Mules can perform this labour without intermission, and without losing flesh.

Queries 73 *and* 74. *Mules.* [Are asses employed in field labour, or as beasts of burden? Are mules bred to any extent and are they used as beasts of burden?] These animals are becoming favourites with our planters. We originally obtained them from the north; but we now raise them in considerable numbers and they are thought to be hardier than those from a colder climate. Our best mules are from blooded mares. They are commonly put to work at two years old, and sometimes as early as one year but both are too soon, as this premature labor stints their growth, stiffens their joints, and makes them, as they become old, slow in their movements. They are easily broke to labour, and if kindly treated, are very docile; but they are sensible of ill usage, and apt to requite it. They can endure heat and fatigue better than horses; are more true to the draft, and less liable to diseases. They live also to a greater age; cost less in the raising; require only two thirds the food when at labor; and when turned out to range, can live and fatten where horses would starve and die. Mules will probably not soon so far overcome popular prejudices as to become favourites for the saddle. Though their ears are long and their tails ugly, they have, notwithstanding, the merit of firm, steady legs, that never trip or falter; and a smooth gait, that carries one very safely and pleasantly along. In a gig or carriage, if not stiffened by too much early service in the plough or wagon, they travel with surprising speed, and outstrip our best horses. Commodore Jones is entitled to gratitude for having captured a British vessel or two during the late war, but he deserves as much from his country for having brought into it a Mediterranean Jack, now owned in Tarborough, whose progeny bid fair to be worth more to North Carolina than half a dozen frigates.

Query 75. *Slaves and slave labour.* [Are the lands cultivated with slaves?] The money-value of a field male slave, in his prime, say from 18 to 30 years of age, is now about 350 dollars, and that of a woman 250 dollars. At forced sales, and they have lately been somewhat too numerous, both have sold for less; and even these prices would not be maintained by home demand, but are rather kept up by speculators, who occasionally purchase for the Alabama and Louisiana markets; and I am not sure they can be quoted as true a few weeks hence. They have been depreciating ever since we obtained war prices. Before the war, and before the establishment of banks, negro boys often sold by weight, and, as we then reckoned Virginia money, the rule was, *pound for pound.* These are about the prices now.

The hire of prime field hands is from 25 to 40 dollars a year, varying somewhat with supply and demand, and with the uses for which they are wanted. I cannot speak of the average of the whole state, as employments vary in different parts of it, according as the corn, cotton or tobacco culture prevails; and also the making of tar and turpentine and preparing lumber. These last and the vicinity of our few manufactories of iron and cotton, by abstracting labour from agriculture, and putting money into circulation, increase somewhat the prices and demand of both agricultural labour and products. After all, I think 33⅓ dollars may be considered as the average hire. These hirelings are nearly all the property of orphans; and the law provides, they shall be annually disposed of in this manner. The hiring is to the highest bidder, and usually takes between Christmas and the 5th of January.

Slave labour is more valuable than free labour. The white cannot endure heat and labour so well as the negro. In general, white labour, for agricultural purposes, is not desired. It is more expensive in the hire; more troublesome and costly in the maintenance; and much less steady and efficient in the application. As to the free negroes, they are a degraded race, below the slaves in all those qualities which procure happiness for themselves or produce usefulness to the community.—The price of their labour depends on merit and qualifications, for some of them have good habits, but the best is lower than that of slaves. A slave can be well and plentifully fed for twenty-five dollars a year, and clothed for 15 dollars.

Query 98. *Improvements.* [What progress has been made, or is now making, to improve the modes of cultivation?] The changing of our old modes of culture, and long established habits of economy, seem never to have been thought of, until the publication of Taylor's Arator, twenty years ago. If this work led few to follow its precepts, it at least produced thinking and inquiry. Agricultural works are now sought for: the American Farmer is extensively circulated and read; one of our citizens, George W. Jeffreys, Esq., has published at the press of Mr. Gales, in Raleigh, an excellent book of Georgical essays, under the title of "Agricola;" a State Board and a few subordinate county societies of Agriculture have been lately formed, which the State has endowed with funds; and a small sum is allowed to the chemical professor of the University, to enable him to make annual explorations of the State, during the summer vacations, on the geology of which he makes regular reports to the Board of Internal Improvements. In practice, the results have not, as yet, been either numerous or brilliant. In places, but "few and far between," are seen the drill culture of corn; deep and horizontal ploughing; something like a rotation of crops; the substitution of oxen and mules for horses; wheat in place of tobacco, and improved implements—and I will particularly mention, as it may be the means of extending its usefulness, that the best plough I have seen, or that I believe has been seen by any one else, is the *Roanoke plough*, invented by David Clarke, and improved by Jacob Gordon.

Query 99. *Improvement of live stock.* [Has much attention been paid to improve the several descriptions of the live stock, by crossing the breeds? What are the best American publications on these different subjects?] Some few partial attempts have been made to improve our cattle by introducing foreign breeds; but I think without success. Males of a large size have been brought from the north, which, with our small woods-raised cattle, have produced a race with high bony forms, and narrow compressed chests, that are said not to be thrifty and hardy. Our cattle are probably fitted to our situation. That they are greatly inferior to the English breeds, with English or northern keep, there is no question: but before we improve our breeds, we must improve our food and habits; and after all, I suspect we must substitute, and not cross, unless in crossing we reverse the usual order. There is some difficulty attendant on the introduction of cattle from abroad, on account of the diseases to which they are liable, and which they are supposed to disseminate among our own stock. Our state has a law against the driving of cattle from the part of the country producing the long-leaved pine, to that producing the short-leaved, (which is nearly the line dividing the low from the hilly country,) and vice versa, between the first of April and the last of November in each and every year; and from South Carolina and Georgia they are prohibited introduction into both those regions during that period. Cattle from the north must at all times be accompanied with bills of health.

Query 103. *Banks.* [Whether the banking system is now in a satisfactory state, and the notes of all the different banks readily exchanged for metallic money at par? What are the best publications in America on banking?] There are three banks in the state, to wit: the State Bank, with a capital of sixteen hundred thousand dollars; and the Newbern Bank, and the Bank of Cape Fear, with capitals of eight hundred thousand dollars each. The state is interested to the amount of about one-eighth of the capital stock in each of the banks, and has its proportionate share of the direction. The State Bank was established chiefly with a view to absorb and take out of circulation about half a million of paper money, of state issue, which proved an impolitic measure; and the operations of the banks since have also had an unfavourable effect upon our prosperity. The blame attaches, not to the management of the institutions, but to the nature of the institutions themselves; to the location of many of their branches in the interior, amidst a population purely agricultural; and to their immediate operations and effects upon those who ought to have had no concern with banking transactions. Our farmers became debtors to the banks to a great amount, where they paid an interest of more than six per cent., while their capital employed in agriculture yielded less. The effects were such as ought to have been foreseen. In consequence of specie payments having been sometimes suspended, the notes of all the banks (for they are of equal credit, and their solvency is not doubted,) are now three per cent. below par at home, and six in the northern cities. One of the banks lately took into consideration the expediency of surrendering its charter and winding up its business; but the measure was not adopted.

Query 105. *Marriages, births, deaths.* [Registers of mortality, whether in towns or country, particularly in the latter? Proportions of births to marriages in the registers; and further, prolificness of married women, or the number of births which married women have had during the period of their child-bearing?] No registers are kept, and the only very partial one I am able to offer was made at our seat of government some years ago, when it contained less than half its present population, and may be of no value now. In the two years 1815 and 1816, (the last two months of 1816 not included,) Raleigh made the following exhibit: *Whites*—marriages, 18; births, 32; deaths, 14. *Slaves*—births, 25; deaths, 20. *Free blacks*—births, 2; deaths, none. The population, Oct. 30, 1816, was, *Heads of families*—males, 150; do. females, 26—Total families, 176. Males, 565; females, 396; foreign students of the academy, 112; transient persons, 30; prisoners in jail, 7; male slaves, 321; female do. 343. *Free persons of colour*—males, 27; do. females, 42—Total population of Raleigh, 1863.

I have thus briefly considered such of the queries as I deemed myself competent to notice. If in these statements and remarks, I shall have in any degree answered the wishes of the liberal traveller who has lately visited our shores; if I shall have shown the respect due from Americans to the son of the patron and friend of our lamented Ledyard; or, if I shall have rendered an acceptable service to the distinguished economist at whose instance most of the queries were propounded, I shall be satisfied with the imperfect manner in which I have employed a little of the leisure that is rarely afforded me. CALVIN JONES.

Wake Forest, N. C., June 20, 1828.

(From Loudon's Encyclopædia of Agriculture.)

OF REARING HORSES.

(*Continued from p.* 258.)

Rearing includes the treatment of the foal till it is fit to work, or to be put in training for use, and also the treatment of the mother till she has weaned her foal.

In regard to the treatment of the mare till she has weaned her foal in England, and in the improved parts of Scotland, a mare, after having foaled, is turned, together with the foal, into a pasture field; and is allowed two or three weeks' rest before she is again worked, either in plough or cart; the foal being allowed to suckle at pleasure during the time. After having had a few weeks' rest, she is again worked in the usual manner; the foal being commonly shut up in a house during the hours of working. In Yorkshire, some farmers are particularly careful not to allow the mare to go near the foal, after her return from labour, till her udder has been bathed with cold water, and not till most of the milk is drawn from it. These precautions are used with a view of preventing any bad consequences from the foal's receiving over-heated milk. Another practice, and which is superior to the above, is also common in Yorkshire, and in many parts of Scotland: after the foal is a few weeks old, and has acquired strength and agility enough to follow its mother, it is allowed to attend her in the field during the hours of labour, and to suckle occasionally. By this means, not only does the foal receive sufficient exercise; nor can any prejudicial effect happen from the overheated state of the milk, as the foal is allowed to draw it off repeatedly, and at short intervals; but the little animal becomes hardy, and loses all timidity, and afterwards requires less breaking; these may be considered as the general modes of management in those parts of the kingdom mentioned above, during the period while the foal is allowed to suckle its dam, which is usually six months; that is, from the time of foaling till Michaelmas, which is the period at which foals are generally weaned, or prevented from sucking. Breeding mares are evidently unable to endure the fatigue of constant labour, for some months before and after parturition: this had led a few farmers to rear foals upon cow milk; but the practice is neither common nor likely ever to become so: and as it is a philosophical fact, well established, that all animals partake, in some measure, of the nature of their foster parent, so there is great reason to fear this practice would prove injurious to foals so reared.

In weaning the foal at the end of six or seven months, great care should be taken to keep the mare and foal from the hearing of each other, that neither may fret or pine after the other. The best method will be to confine the foal in a small stable by itself, which should be furnished with a rack and manger, where it may be fed with clean shaken hay, and clean sifted oats, bruised a little in a mill, or chopped carrots, or boiled potatoes. With this management, he will quickly forget his dam, and become gentle and familiarized to his keeper, and in fair weather may be suffered to exercise himself in a pasture adjoining to the stable; but this should be only for a little while in the middle part of a sunny day; the tenderness of the young animal rendering it dangerous to keep him out in the night.

The treatment of weaned foals in England, is to put them immediately into a good fresh pasture, where they remain as long as the winter continues moderate. On the approach of winter, they are fed with a sufficient quantity of hay, placed in a stable or hovel, erected in the field for the purpose, and into which they have free access at all times. The next summer they are put into other pastures, commonly the most indifferent on the farm, where they remain till the beginning of the following winter, when they are either allowed to range in the pasture fields, or brought home to the straw yard. The inclemency of the winter in Scotland, and the great falls of snow which generally take place, render it necessary always to house the foals there during that season.

During the first winter foals are fed on hay with a little corn, but should not be constantly confined to the stable; for even when there is nothing to be got on the fields, it is much in their favour to be allowed exercise out of doors. A considerable proportion of succulent food, such as potatoes, carrots and Swedish turnips, (oil cake has been recommended,) should be given them through the next winter, and bean and peas meal has been advantageously substituted for oats, which, if allowed in a considerable quantity, are injurious to the thriving of the young animal, from their heating and astringent nature.

During the following summer, their pasture depends upon the circumstances of the farms on which they are reared. In the second winter, they are fed in much the same manner as in the first, except that straw may be given for some months instead of hay; and in the third winter, they have a greater allowance of corn, as they are frequently worked at the harrows in the ensuing spring. (*General Report of Scotland*, v. iii., p. 183.) When about three years old, the author of the *New Farmer's Calendar* advises foals to be fed all winter with a little corn twice a day, or carrots, with hay, oat straw, &c., allowing a well littered shed, or warm straw yard. Colts fed at home with green meat, cut during summer, should have a daily range on a common, or elsewhere, for exercise. Yearlings to be carefully kept separate from the milch mares.

The time for gelding colts is usually the same in both parts of the kingdom, which is, when they are about a year old; although, in Yorkshire, this operation is frequently suspended till the spring of the second year, especially when it is intended to keep them on hand, and without employing them in labour till the following season. Parkinson disapproves of delaying this operation so long, and recommends twitching the colts, a practice well known to the ram-breeders, any time after a week old, or as soon after as the testicles are come down; and this method, he says, he has followed himself, with great success. (*Parkinson on Live Stock*, vol. ii., p. 74.) Blaine's remarks on the subject of castration appear worthy of notice: he says, when the breed is particularly good, and many considerable expectations are formed on the colt, it is always prudent to wait till twelve months: at this period, if his fore parts are correspondent with his hinder, proceed to castrate; but if he be not sufficiently well up before, or his neck be too long and thin, and his shoulders spare, he will assuredly improve by being allowed to remain whole six or eight months longer. Another writer suggests for experiment, the *spaying* of mares, thinking they would work better, and have more wind than geldings. (*Marshal's Yorkshire*, vol. ii. p. 169.) But he does not appear to have been aware that this is by no means a new experiment: for Tusser, who wrote in 1562, speaks of *gelding fillies* as a common practice at that period. The main objection to this operation is not that brood mares would become scarce, as he supposes, but that, by incapacitating them from breeding in case of accident, and in old age, the loss in this expensive species of live stock would be greatly enhanced. An old or lame mare would then be as worthless as an old or lame gelding is at present.

The rearing of horses is carried on in some places in so systematical a manner, as to combine the profit arising from the advance in the age of the animals, with that of a moderate degree of labour, before they are fit for the purposes to which they are ultimately destined. In the ordinary practice of the midland counties, the breeders sell them while yearlings, or perhaps when foals, namely, at six or eighteen months old, but most generally the latter. They are mostly bought up by the graziers of Leicestershire, and the other grazing parts of that district, where they are *grown* among the grazing stock until the autumn following. At two years and a half old, they are bought up by the arable farmers, or dealers of Buckinghamshire, Berkshire, Wiltshire, and other western counties, when they are broken into harness, and worked till they are five, or more generally, six years old. At this age the dealers buy them up again to be sent to London, where they are finally purchased for drays, carts, wagons, coaches, the army, or any other purpose for which they are found fit. (*Marshal's Economy of the Midland counties*, vol. i., p. 311.)

In the west of Scotland, a similar *mode of transferring horses* from hand to hand, is common. The farmers of Ayrshire, and the counties adjacent, who generally grow corn on not more than one-fourth, or at the most, one-third of their arable land, and occupy the remainder with a dairy stock, purchase young horses at the fair of Lanark and Carnwath, before mentioned; work them at the harrows in the following spring when below two years old; put them to the plough next winter, at the age of two and a half, and continue to work them gently till they are five years old, when they are sold again at the Rutherglen and Glasgow markets at a great advance of price, to dealers and farmers from the south eastern counties. A considerable number of horses, however, are now bred in the Lothians, Berwickshire, and Roxburghshire, the very high prices of late having rendered it profitable to them, even upon good arable ground; but many farmers of these counties, instead of breeding, still prefer purchasing two and a half or three and a half year old colts, at the markets in the west country, or at Newcastle fair, in October; they buy in a certain number yearly, and sell an equal number of their work horses before they are so old as to lose much of their value, so that their stock is kept up without any other loss than such as arises from accidents; and the greater price received for the horses they sell, is often sufficient to cover any such loss. (*General Report of Scotland*, vol. iii. p. 182.)

GOOD FARMING.

J. L. Boylston, Esq., of Princeton, in this state, has raised this year from three and a half acres, and twenty-eight roods of ground, *two hundred and twenty six bushels of corn*, averaging 61¼ bushels of shelled corn per acre; and also, on the same land, 50 cart loads of pumpkins, and 120 bushels of turnips. Who can beat this in Massachusetts.

[*Boston Palladium.*

CATTLE SHOWS.

Notice of the one held on the 16th October, 1828, in Washington county, Pennsylvania.

[From a friend, to whose enterprise and great judgment that county is deeply indebted, we have received the Washington "Republican," containing an account of a brilliant display of the industry and flourishing prospects of his agricultural fellow citizens, on the day above mentioned. Of the show in general, not having room for the details, we may quote the very judicious review of the Committee appointed to make a general survey of the exhibition; and, for the present, the interesting report on the live weight of a number of cattle, tested by the scales.

The balance of the account by the reviewing Committee, with, perhaps, some striking items from the particular reports, will be given in our next.

It gives us particular pleasure to see how emphatically the general Committee testify, that "*experience demonstrates more clearly, every year, the superiority of those crossed with the pure blooded horse of England, for every purpose except the road-team, and even there (when size can be obtained,) their superiority is acknowledged.*"]

REPORT

To the President and Directors of the Washington Society for the promotion of Agriculture and Domestic Manufactures.

The committee, appointed to prepare a brief notice of the various objects of interest and utility which were exhibited at the late annual show, beg leave to *Report*,

That not having been previously charged with the duty now imposed upon them, their examinations were not so particuar and minute as to enable them now to present details which would be highly satisfactory. Many objects no doubt escaped their observation; nor can they on any, pretend to be so full in their descriptions as in other circumstances would be desirable. One thing they think was obvious, not only to themselves, but to the great concourse of male and female spectators who were assembled, viz: the increase and increasing importance of such societies, which sanctioned by law, and supported by public opinion and encouragement, are calculated to draw forth the abundant resources of wealth and prosperity with which nature has stored our happy country, and which the ingenuity and industry of our citizens are fully capable of improving to the utmost advantage.

The truth of this remark will be sustained (we think) by the experience of those who have been in the habit of attending our annual exhibitions. The last show, although in some respects perhaps, not surpassing those previous, yet in the aggregate it is conceived, indicated a progressive movement.

The Stallions on the ground were about 30, but several of those should never have been shown for premiums. Your committee were much gratified however in noticing a number of horses of a very different description, combining the desirable qualities of *figure, strength*, and *action*, nor can we let this opportunity pass without calling the attention of our farmers to the importance of improving the breed of this highly useful animal. Experience demonstrates more clearly every year the superiority of those crossed with the pure blooded horse of England, for every purpose except the road team; and even there, (when size can be obtained) their superiority is acknowledged.

The Brood Mares were not so numerous as on former occasions: and although many of those present were very fine, yet we must say that the exhibition did not come up to our expectation.—Of the

Two year old—yearling and spring Colts, a considerable number promise to make very valuable animals, and show most conclusively (what has been already remarked) the advantage to be derived from a cross of our large mares, with the full blooded horse.

The whole number of Horses, Mares, and Colts on the ground was between 90 and 100.

Mr. Walter Craig exhibited a fine Jenny and a very promising young Jack, which attracted much attention, none having been exhibited at any of our former exhibitions. As they were not entered for premium, they did not come immediately under the cognizance of the appropriate committee.

If we were in some measure disappointed in the exhibition of horses, we were amply compensated by an examination of the pens and enclosures well filled with about 100 head of

Horned Cattle, many of which would do honor to any exhibition in our country. It was admitted by every spectator, that in no department of Agricultural pursuit has so rapid and visible an improvement been attained. The beauty of form and extraordinary weight of young cattle excited universal admiration. It is perhaps worthy of remark (in order to show what may be done, even by the introduction of one fine animal) that every *Bull* on the ground, except two, were descendants of Mr Reed's "Nonsuch," of the improved *short horn breed*. A considerable number of *working oxen* and *fat cattle* was exhibited, highly creditable to the county, and showing that they had not been neglected by their owners.

The Merino Sheep, were not so numerous as we expected, but all of a superior quality; and whilst we complain that so few were shown we must express the belief that the specimens of wool from them were equal to any *Saxony* we have ever seen. We are confident the number will be made up next year; for we know no county in the state can excel ours in this highly important branch of husbandry.

The Hogs, were also deficient in number, but like the sheep, showed a great improvement in quality. The Bedford breed, lately introduced into this country, are rapidly spreading, and as rapidly improving our stock. Their docility, early maturity, and great propensity to fatten, render them an important acquisition to the judicious farmer.

Weight of Cattle

The following is a statement of the weight of the cattle, weighed at the Cattle Show on the 16th inst all except Mr. Burgan's bull, the oxen, and Mr Reed's three first cows on the list, are of the improved Short Horned stock.

	Weight.
A. Reed, Red Cow - - - - - -	1434
Do do - - - - - -	1400
Do Spotted do - - - - -	1264
Do "Nonsuch" Bull - - -	2100
A. Reed, Dun Heifer, 3 yr. and 6 m. old -	1264
Do Red do 2 yr. and 2 m. old -	1008
Do do do 1 yr. and 8 m. old	840
Do do do 1 yr. and 6 m. old	840
Do Bull, 1 yr and 4 m. old	850
Do Calf, 6 m. and 7 ds old -	560
Do do 7 m. old - -	558
Do do 5 m. 2 ds. old	508
Do do 6 m. 22 ds. old	474
R. Lattimer, Bull, 1 yr. and 8 mo old	1064
J. Stockton, Yoke Oxen 5 yr old - -	2968
Deniel Leet, do do 6 yr. old -	2772
Moses Bell, do do 5 yr. old -	3072
Do do Bull, 1 yr. old -	1008
Joseph Aiken do 1 yr. 3 m old -	1262
Robert Moore, do 2 yr. 6 m. old	1460
A. Wier, do 2 years old - -	1344
Do do do calf 8 m. old -	558
Do do Yoke Oxen, 8 yr. old - -	2688
Do do do Steers, 3 yr. old -	2408
Thomas Porter, Bull. 3 yr. old - -	1708
J. & J. Strain, Bull Calf, 2 yr. old	1148
James Burgan, Bull, 3 y. 3 m. old -	1708

HORTICULTURE.

(From the N. Y. Commercial Advertiser.)

CULTURE OF SILK.

Report to the American Institute, on the causes which have retarded the progress of the culture of Silk in the United States, and on the means of promoting the same, &c. as requested by their resolution of 17th September, 1828.

Mr. President—From an official document, as transmitted to Congress by the Secretary of the Treasury, February last, it is ascertained that King James I. in the year 1623, gave his ministers positive orders to direct the attention of the settlers in Virginia to the culture of silk, and to supply them forthwith with worm eggs, with mulberry and with printed instructions: He wished also that this culture might be preferred to that of Tobacco, and make up for the complete failure which had been experienced in propagating the same in England. The royal command having been duly communicated to the Governor and Council of Virginia, the colonial Assembly passed a general act in execution thereto. It was not much attended to however, and not until 1656, when the legislature enacted a penalty of 10 pounds of tobacco upon any one who had failed to plant 10 mulberry trees for every acre of land in his possession. The following bounties or premiums were also provided: to wit, 4000 p. T. to a colonist who would pursue the culture and the trade of silk—and 10,000 D. to any one who could export 200*l.* sterling worth of raw silk in one year.

These rewards and fines were not faithfully granted nor exacted, some were altered or repealed at different periods of time. We are not informed of the real causes that induced a relaxation of the adopted plan, nor of its proportionate success or failure, except that king Charles II. had used some silk garment from Virginia, and that in the year 1661, a colonist member of their legislature had claimed a bounty for having planted 700,000 mulberry trees on his land.

From the Document above stated, we are also informed that in the year 1732, the culture of silk was pursued with great spirit in the settlements of Georgia, under both royal and colonial regulations; namely, by the grant of land, for the planting of mulberry trees upon every ten acres, when cleared, and ten years after cultivation This novel means of economical and agricultural industry, so far progressed, that within two years of the above date, a parcel of reeled silk was transmitted to the mother country, and there made into a piece of silk as a present for the Queen. In the year 1751, a public filature house was elected at Savannah, by order of Trustees, and rebuilt seven years after, because it had been consumed by fire. The domestic pursuit appears to have been so far maintained there, that in the year 1790, after the Revolution, a small quantity of silk was brought into Savannah, from the upper lands, to be sold for exportation, and was disposed of at the price of from 18 to 20 shillings per pound.

We can nearly say as much of the zeal manifested in South Carolina, where the same measures made some progress and impression upon the inhabitants. The silk culture was so far countenanced by the wealthiest of the commonwealth, that they rendered it fashionable among the principal ladies and families of the capital. From Charleston, yearly exportations of raw silk were made for the English manufactures. Presents, also, of complete dresses of the colonial silk, were made to the Princess of Wales, and to Lord Chesterfield. The price of this American produce happened to be enhanced to that of the best quality.

Whether the successive attempts of the Mother Country to establish the culture of silk in different colonies were directed by the choice of climate, at first temperate enough, then southerly, and afterwards more northerly; or whether that government were impelled by different motives in their successive efforts of placing colonies, in that great undertaking, we have no means to ascertain. But it is not without surprise, that we find the great colony of Pennsylvania called at so late a period as 1771, to the benefit of this improvement of territorial and manufacturing industry. It was principally commenced there by the help of their colonial agent in England, Benjamin Franklin, who procured the best materials for instruction, and machinery for various manufacturing processes He directed, also, wholesome regulations to forward the general adoption and practical art of the culture throughout the country—among which, one was, a company or society, that by the help of legislative provision, could form and maintain a stock capital, for the purchase and sale of raw material, reverting the profits, in balance, to the extension of domestic manufacture. A Public Filature was consequently devised, built up, and assorted. If so much could be done within a few years, we are the more compelled to regret the adverse circumstances attending the revolutionary war, which had thus put an end to the measures and emulation of this most industrious community. We have no data that could enable us to make an estimate of the proportionate success that had already been obtained. An important experiment, had however, been made, and remains authoritative, and should be attended to by our future silk culturists in cases of untimely want of the white mulberry leaves: it is, to feed the worms with the leaves of the *native* mulberry, which, probably may bud much sooner in the spring, than the *exotic* trees can be be ready to be plucked. This historical summary of the culture of silk in this part of the world, since its first introduction until the war for independence, embraces a period of one hundred and forty-three years, from which very important inferences will obviously assist us in the subject we are now investigating.

At the awful period which tried men's souls, and universally compelled the inhabitants of these thirteen provinces to disregard their agricultoral pursuits, and other personal interests, it could not be expected that any of the energetic measures which had been taken, could be peaceably continued; nay, that they could even be usefully remembered, and resumed. The document above cited, tells us, however, that the silk culturists of Connecticut, after their political struggle was over, gradually entered into their habitual industry, and that some efforts were attempted in other states, even in Kentucky, and also in some of the upper counties of the state of New York. We learn further, that no section of the Union has been so prompt in reviving the culture, than our neighbour on the other side of the Sound, and to whom the more credit is due, that they did never receive any help from their fellow-citizens, nor from England. Yet, certain facts have been stated and circulated, respecting their accurate knowledge of the art of silk growers, and remarkably so in three different counties. These we would wish to have seen more accurately defined. The friends of the country and of the prosperity of its inhabitants in a particular kind of culture, must and can understand very well, that exaggerated reports on the subject, would ultimately deprive their authors and supporters of such a share of encouragement, confidence and credit, as they may really be in want for farther progress. We never could ascertain what quantity of silk, raw, reeled or organzine, could be manufactured at home in Connecticut, and what part of the manufacturing machinery is in use among them, besides the domestic small and large wheel. From *Mansfield* we know that the largest quantity of sewing and twisted silk is obtained; but all exaggerated reports, contrary notwithstanding, we have by fair calculation ascertained that the whole could not exceed a quantity of 3 or 400 pounds of reeled silk. Considering every thing and circumstance which have been adverse in that state, we have reason to admire the intelligence and perseverance of those culturists; we will say farther that if they and those of Pennsylvania had been in former years the subject of as much care as the Southern settlements had anciently been, the culture of silk would certainly be there more flourishing, and in command of materials sufficient at least for exportation, or for home consumption.

Such are the remarkable facts which we thought necessary to assemble and condense within a chronological history of the silk of the United States, embracing to this day a period of nearly two centuries, and from it we will now be able to draw the following conclusion.

1. At no period of that long succession of years there has been any cause to complain of the seasons or climate, of defects or of the quality of land, unfavourable to the growth of the mulberry tree, much less of any congenial difficulty in raising the silk worm, or of finding any imperfection or degeneracy in the quality of American silk.

2. That when measures were urged by the Royal and Colonial Government, to compel planters in Virginia to adopt the culture of silk, it had been intimated to them that this should be preferred to tobacco, "which brings with it many disorders and inconveniences." Whatever might then have been the situation of the colony, it nevertheless appears that the subject was not at all or very little attended to until thirty-three years after, which proves that there was some dislike of this undertaking on the part of the colonists; and after effectual measures were at last adopted, the same were soon relaxed, repealed, and at last suspended or abandoned at the very time in which a colonist, a member of the legislature, could claim the premium for having planted 70,000 mulberry trees on his own lands. Such circumstances indicate, therefore, that from some motive, and probably from the inability of black slaves to understand, or to attend the services and cares of the culture of silk, it was not found to be of sufficient interest, and was willingly dropped by the generality of planters.

3. Had there not been some very cogent and adverse cause against the success of this culture in Virginia, we would not find it so long forgotten or unattended in two neighbouring states of South Carolina and Georgia, in which it was successively commenced, sixty-four years after, but with no more prominent success, although the possibility was, in each settlement, abundantly proved, especially in the last, in which this branch of industry was entirely under the management of trustees; hence some good parcels of silk were still imported from the back lands in Savannah after the revolotion; but we understand that the silk growers in South Carolina were less numerous among the planters than among the fashionable families and ladies of Charleston, who certainly could manage and conduct it better than black slaves.

The history of these failures can be further illustrated by similar events experienced by the French government in their attempts to establish the silk culture in the island of Bourbon, in the middle of the last century. Some speculating company induced the ministry to grant certain privileges in the view of raising two annual crops of silk in that island, in which vegetation is luxuriant and never interrupted,—the climate and temperature are in other respects similar to that of our southern states. The Abbe Sauvage, a learned writer on silk, attributes their failure to some kind of degeneracy of the insect or silk; but of such result we have seen no convincing proof, much less do we hear that the like has ever been observed in the silk from the British southern colonies; but the excellent and learned mentioned author had never been in the way of estimating and judging how little black slaves are fit or calculated to assist us in the various departments of the culture of silk, and much less in the delicate cares of the raising and nursing of the silk worm—nor did the same writer observe how little labour ever planters do in countries where one description of people is the property of the other.

Intelligence, delicacy, an unwearied attention to the cares required for little animals, which one must move, clean, feed and nurse with his own hands, during four or five weeks—cares, do I say; so easily but exclusively well discharged by females, whose outward senses can better judge of the temperature and pure air, whether they are engaged in amusement or in occupations of domestic economy: all these are subjects which can be better understood than accounted for at present. They will be better explained, also, when we will have occasion to show that there are two methods of raising silk worms; the one which we call natural, and anciently established in Europe, by which alone this produce could long ago be obtained, and become a staple commodity of the land. The other is a scientific method, and modern; its profits are at least double, and are often trebled; but it requires to be carried on in a large scale by experimenters wholly devoted to it, at the price of considerable and expensive preparations. Such a method does not suit a multitude of people in cities and country; and if the culture of silk is to be made and become a national object of industry, we must still rely on the most simple, easy and congenial mode to the abilities of numerous families who have many unengaged hands and rational beings at their command, all emulous in the cause of common prosperity, and partakers of its amusements, recreations, and rewards. This fugitive and condensed point of view, of what is fundamental in the pursuit of a new kind of pleasure for us all, should satisfy any enquirer into the causes which have so far retarded the progress of the culture of silk in those British colonies, in which all kinds of labour is, or is presumed to be, discharged or attended to by black slaves: besides, it is well known, and let it be said without malevolent or invidious distinction between fellow-citizens, that the domestic attributes of fitness in personal industry, trouble, labour or care, cannot much be expected from whomsoever, male or female, are born and appertain to countries still organised in agriculture, &c. as they were under a colonial system.—Would to an inspiring wisdom and foresight, that the many measures and expenses bestowed by the British government, had at least been divided between the Southern and Eastern settlements, and the success in the latter—and a complete success, would no doubt, have fully answered their expectation. It was too late before the revolution, when, perchance, the project was attempted in Pennsylvania, owing to the wishes of the celebrated Franklin, and to the tendered services of the London Society for the promotion of arts, &c. which already had almost exhausted their funds, by sundry encouragements for the colonists. Whatever was done by them, however, in our neighbouring states, was not altogether lost, in spite of the succeeding revolutionary wars and domestic troubles. There, still, we find knowledge, experience, and a strong disposition to forward the culture; and not an inconsiderable annual produce of silk may be depended on from several counties of the state of Connecticut.

The second part of this report which relates to the means of promoting the culture of silk, should embrace proper provisions for securing the planting and propagation of the mulberry tree, to the most possible extent; to the diffusion of necessary, elementary and practical knowledge, to be possessed by silk growers; and to the establishment of a public nursery, filature and manufacture, in which the labour should be discharged by young male and female persons, who in proper seasons, would be gratuitously instructed in the requisite different processes in the above departments.

Instructed by our predecessors, we will first consider that the mulberry tree is not only absolutely necessary, but that in any country where the produce of silk is contemplated and desired to become a staple of the earth, it should be placed every where. This is not like the breadstuff of men, which may be procured from distant regions, and the surplus of it transported for any other commodity into any spot where it may be wanted. It is not like the fodder of cattle that is stowed up in stalks in one season to be used in another. Like any garden roots, legumen or pulse, no less obedient in its growth than it can be obtained by our labour and shelter in green or hot houses. Contrary to all crops from cultivation and art, that of the mulberry should and must transiently be gathered like flowers in a single returning period of the season; not longer than four or six weeks, not stronger in its growth than the insect which lives upon it, always fresh, and a like substance which to be pure and good should hardly be contaminated with any other agent but by the morning dew, and which a diurnal revolution alone can spoil, which of course should never be conveyed or depended upon from distant tranportation. Again, mark it well, a small portion deficient would in ultimate result be as disastrous for a crop as the total want of it. In fine the culturist of the silk worm must simultaneously be the culturist of the mulberry tree; both are as it were inseparable from each other, at least the one could not with impunity monopolise upon the other. Those truths were so well engrossed upon the mind of the first promoters of the culture of silk in America, that they had recourse either to extravagant bounties and penalties to force the cultivation of the plant; and in old silk countries of Europe, from the same motive and impression, sometimes this agricultural promotion was pursued under the banners of gallant chivalry, also of absolute dominion under barbarism, of philanthropy and patriotism by renowned chieftains, kings and philosophers, and by liberal grants and donations from wealthy individuals, churches and other institutions—as much as if any of them wanted to boast of having added by a mulberry tree, as great treasure or benefit to his fellow citizens, as a stalk more than what nature gives to any grain of corn intrusted to a fertile soil.

Nature indeed affords a powerful argument in invitation to us all for the propagation of the Mulberry Tree—none can be more easily multiplied than this plant. On the one hand we are told, and it is proved, that any refuse land, or unpropitious to accustomed produce, is or can be congenial to its growth and luxuriant vegetation; that its fruit and leaves could be depredated by all kinds of cattle; that whatever labor the plant requires in its various purposes, it is merely required for its comparative usefulness in the rearing of silk worms, or in the supply of seeds that must be obtained from it; and that an ounce of these seeds is sufficient for the growth of 16,000 trees during the succeeding season What more pressing and encouraging motives could then be offered to induce us to concur by all possible means, in the execution and accomplishment of the work already commenced by the committee of the institute.

2. Next to this is the diffusion of the elementary knowledge and practical processes to be used for the culture of silk.

A copious book of introduction on that important subject has already been published by order of government, which more resembles to an encyclopedic repertory of all matters appertaining to silk culture and manufacture, than to a comprehensive elementary and popular code of instruction, as universally applicable as the desired extension and application of it should require. Nor should both subjects be united in matters of study, because they require different minds, taste, perception, and practical means of application. The one is as much an agricultural pursuit, as the other is of a commercial industry. The first relates to the national and territorial wealth; whilst the other constitutes the medium by which all foreign treasures can be obtained. It is, therefore, embracing different classes of citizens. Hence the original settlers of America were led into error by experimenting at once to be silk culturists and manufacturers, although England, their mother country, had been taught that she herself could embrace but one only, and the last pursuit: that many of the American States may become successful in either, it is our fond and well established opinion; but inasmuch as the manufacturing provisions and expenses could not be redeemed but by the domestic produce, this only must be first secured, and upon the proportion only of its success, the manufactures of silk can be based, pursued and depended upon.

Whatever relates to the raising of silk worms, constitutes a kind of domestic and an hereditary science in families of silk countries, from the highest to the lowest rank. They need to know but one method, which we have already called the old and natural method, in opposition to a more scientific and modern system. The former, however, has never afforded but moderate profits, in proportion to those of the latter. The culture of silk has successfully been established in Italy, France, Spain and Germany, at times when it was not even expected, that with little more art, a scientific silk grower could raise three times more money. But if in our modes of popular instruction, we have it in our power to introduce, in our instructions of the old method, as many of precepts and rules as can be within the limited means of our farmers, cottagers, or villagers, we will enhance the merit and the value of ordinary means and labour the better; so that no expensive provision will be required, except those of great attention and industry.

We will not disregard whatever changes or practical modifications may be adopted in a different climate and country, but we will severely rebuke many notions or measures which we have detected in the few silk culturing districts of this country, and of which we pledge ourselves to show the fallacy and the depressing or ruinous effects. A mode of cultivation, also, which we will particularly recommend to any American culturist, is that of never proceeding to the domestic experiment of raising silk worms without procuring at least, for their guide, some authentic journal of annual silk crops, conducted by eminent culturists of Europe. For the last provision although never thought of before in any country where public authority has been exercised, to introduce this most valuable source of wealth and industry—permit me emphatically to solicit your particular attention for its accomplishment.

Select in the neighbourhood or within some of the suburbs of this city, a plot of a few acres pleasantly situated, for a mulberry orchard sufficient to a few ounces of seeds, and for plain commodious required worm buildings, just calculated to contain and execute all manufacturing processes that are necessary to send silk to market, raw or reeled, &c. A single well qualified culturist may then be sufficient every spring to conduct the hatching, rearing and mounting of the brood, by the help only of as many young male and female attendants as his nursery would require, and a great many more too whose friends, masters or parents, would be glad to secure to their family a well tutored and practically exercised pupil in the culture of silk. The competition for such a school would be so great, that no expense would ultimately be required to obtain a crop of 1000 lbs. of silk, except for the hire of the ground, and the salary of the tutor, leaving an overflowing balance of the profits for fixtures and local embellishments—This *Bombycisnal Academy*[*] would be the first and the best for cheapness, and liberal tuition of the present and future generations, in one of the richest produce of the land, and of the economical industry of its inhabitants. All which is respectfully submitted.

FELIX PASCALIS, M D.
Hon. Member of the American Institute.
New York, Oct. 9th, 1826.

MULBERRY TREES.

Mr. Skinner: *Middleburg, Pa.*

Will you have the goodness to state in your useful journal, that I have 65,000 young white mulberry trees, 5000 of which are for sale—they are the proper size for planting in orchard form, and the fall season is the best for planting. Persons purchasing can be supplied with the silk worm eggs of the Italian, Chinese and Mongrel species, *gratis*—I have made 1400 skeins of the first crop, and 200 of the second, from 100 trees of six year's growth, specimens of which I herewith send you.

Yours respectfully, GEO. W. HEWITT.

N. B.—I will thank some one of your numerous correspondents to inform me what is the best mode of raising the white mulberry tree from *cuttings*, and the proper season. G. W. H.

LADIES' DEPARTMENT.

FEMALE EDUCATION.

(Continued from p. 269.)

IRREGULAR CONDITION OF THE PROFESSION OF TEACHING.

The incapacity of teachers may be adduced as the greatest obstacle to an efficient course of female education. What are the qualifications of those who are placed at the very vestibule of society, precisely in that situation, wherein the individual takes her line of departure, and, of course, whence the least deviation on either hand, must cause her divergence from the right, to be in a direct ratio with the time in which she is engaged? Now, as we regard the profession of a teacher to be the most important and responsible one, whether we consider its effects upon the individual, or upon society at large, which can devolve upon any member of the human family, we *prefer* the following questions;—

Who are the teachers of youth? How have they qualified themselves for the *profession* of teaching? What have been their previous opportunities and applications? By what *criteria* are we to judge of their competency? And, lastly, who are the qualified and proper judges? We have our medical board and medical college; and in the professions of law and divinity, the competency of the candidate for public patronage is made manifest, by the occasions on which it is called forth. But the teacher is an *autocrat*, self invested in power and dignity, and who is the hardy *stripling* that would dare call in question the *dicta* of him, whose authority is absolute in the infant realm in which he governs? In the humblest mechanical profession, some evidence of the qualifications of the individual is required; and yet, how truly extraordinary is it, on a subject of such deep and vital importance to society, as that of instruction, so little positive evidence is given or required, as it regards the ability of those who are to officiate as instructers. In city, town, or hamlet, the instructer is "cynosure of neighbouring eyes;" his scheme of teaching includes a perfect encyclopedia of the arts and sciences, and personating in his individual self, *les maitres* of Moliere's Bourgeois Gentilhomme, he proposes to teach *le Latin, le Grec et la Philosophie.* Does the profession of teaching, differing from all others, require no previous initiation; or is it demanded of the teacher, that before he attempts to *impart*, he should have *received* instruction; and that he should understand those subjects which he professes to teach? But the fact is, throughout "our merry land," most of our teachers proceed as the Gil Perez of Le Sage;—"Il entreprit de m'apprehendre lui meme a lire, ce qui ne lui fut pas moins utile q' a moi; car en me fesant connoitre mes lettres, il se remit a la lecture."

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[*] Bombyx is the name technically given by ancient and modern naturalists to the caterpillar silk worm.

Is not the inefficient course of instruction, or to speak more correctly, the negative result, to be assigned frequently to causes of this kind? This is a question, which comes home to the business and bosoms of every parent; and, we do repeat it, if in any profession assurance ought to be made doubly sure, "that the probation have no hinge or loop to hang a doubt on," it is in the qualifications of the teacher. How, then, does it come to pass, while in other professions a mediocrity of talent is by no means uncommon, in that of teaching the attainments of its professors should be of the most humble kind? In answering this question, we think we may assign the two following causes; first, the little inducement, either as it respects honour or emolument, which men of tolerable attainments have to adopt this profession; and, secondly, most of those who are qualified for the duties, propose them only as a temporary expedient for the attainment of a learned profession. Besides, to men of aspiring disposition, what inducements can be held forth to embrace a profession, which, sentimentally, all delight to honour, but which truly and practically, is placed upon a very humble foundation? This does not imply a fault in public opinion; for this *opinion*, like the physical law of fluids, indicates by a scale of just gradations, the true *level* of persons and things. It is with professions, as with sects; their reputation depends, in a great measure, upon the constituent parts which go to make up the compound. Apply this to the professions of medicine, law, and divinity, and it will be found correct. In fact, the dignity and excellency of any one profession, *do* and *will* depend upon the dignity and excellency of the majority of those persons, of whom the profession is composed. This is exemplified in the department of surgery. It is little better than a century, since the barber and the surgeon were identified in the same individual, and the physicians of Europe peremptorily refused to grant diplomas, or to admit into the class of gentlemen those who devoted themselves to chirurgical science. At the present day baronets and knights may be found in the ranks of surgeons. "Dionysius is at Corinth," was the sneering reply of the Lacedemonians to the threats of Philip. Milton, panoplied in all the learning of antiquity, could only be attacked, in what his contemporaries deemed his vulnerable point. Indeed it is only the other day, in a controversy between a learned professor and a noble lord, the latter being discomfitted by the arguments of his opponent, in order to turn the scale of victory, was obliged, like another Scipio, to carry the war into the enemy's country, and attack him *focis et arcis.* From these and other causes, the ranks of teachers are, for the most part, filled up with what may be considered humble votaries in the lists of letters; and it must be taken for granted, that he who can enter the innermost part of the temple of science, will not be content to be "a proselyte of the gate."

CHARACTER OF OLIVER CROMWELL'S WIFE.

Elizabeth, daughter of Sir James Bouchier, and wife of Oliver Cromwell, was a woman of an enlarged understanding and an elevated spirit. She was an excellent housewife, and as capable of descending to the kitchen with propriety, as she was of acting in her exalted station. It has been asserted, that she as deeply interested herself in steering the *helm*, as she had often done in turning the *spit;* and that she was as constant a spur to her husband in the career of his ambition, as she had been to her servants in their culinary employments; certain it is, that she acted a more prudent part as Protectress than Henrietta did as Queen, and that she educated her children with as much ability as she governed her family with address. She survived her husband fifteen years, and died the 8th of October, 1672.

[*Fellowes's Historical Sketches.*

THE LAY OF THE MOURNER.

By Mrs. C. B. Wilson.

It is not mid the busy throng,
When all around from care are free,
That tender thoughts come stealing on,
Mingled with fond regret for thee!
It is not in life's giddy round,—
The crowded scene,—"the hum of men,"
My heart is conscious of the wound
That ne'er on earth shall heal again!

No!—it is when the busy day
Is o'er; and night, in sable pall,
(Chasing each worldly thought away,)
Veils lowly cot—and lordly hall!
When Sleep sits close on happier eyes,
On lids from Sorrow's tear drops free;
That phantoms of the past arise
And Memory's vision turns to thee!

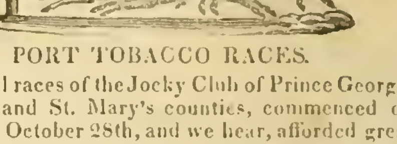
Yes!—oft thy smile's remember'd light
Illumes the darkness of my soul,
In the calm hours of "stilly night,"
When Fancy reigns without control!
Oft do the morning stars surprise
(Those ling'ring gems pale daylight knows,)
My vigils,—ere these wakeful eyes,
Have tasted Slumber's brief repose!

They bear me on from place to place;
From rustic scene to lighted hall,
And, if Joy's sunshine cross my face,
Deem that I have forgotten all!
But wrong they deem!—unquaffed by me,
Lethe's oblivious wave may flow;
I would not lose one thought of thee,
For all that pleasure could bestow!

Thy memory!—'tis the light that flings
Radiance,—where darkness else had been,
The link to which my spirit clings,
To draw it from this mortal scene;
It is the one inspiring thought,
From all earth's grosser passions free;
The whisper'd Hope, with rapture fraught,
That where thou art—I yet may be!

They who would bid my fancy range,
From dwelling on thy mem'ry here,
What do they offer in exchange,
That I could cherish half so dear?
My guide on earth, my hope in heaven,
The pilot of Life's darken'd hour;
Oh! say—what bliss has pleasure given,
To equal Sorrow's hallowing power?

SPORTING OLIO.



PORT TOBACCO RACES.

The fall races of the Jocky Club of Prince George, Charles, and St. Mary's counties, commenced on Tuesday, October 28th, and we hear, afforded great sport. The first day's race, four mile heats, for a purse of $200, was won by *Gracchus Junior*, belonging to Mr. Edelin, beating Mr. Baden's horse *Gabriel*, Governor Sprigg's horse *Forester*, and Mr. Lloyd's horse *Cornwallis.* The first heat was run in 7m. 59s.; the second heat in 8m.

The second day's purse, of $150, two mile heats, was taken by Governor Sprigg's *Forester*, in three heats, Mr. Hamilton's *Combination* winning the first heat.

Doctor Tyler's horse *Punch* and Mr. Lloyd's *Clara Fisher*, were also beaten in this race, the latter running *Combination* very hard the first heat.

The third day, a saddle and bridle were run for, and won by a bay horse of Mr. T. Semmes, in five heats of a mile each. [*Nat. Intel.*

PEDIGREE OF ARCHIBALD.

J. S. SKINNER, ESQ., *November* 10, 1828.

Sir,—The pedigree of the imported horse Archibald is inquired for in the last number of the American Farmer. You will find the pedigree of Archibald in the 13th No. vol. 10th, (now publishing,) of the American Farmer. I furnished you with the pedigree of the imported horse Alexander, at the same time. Both horses were imported by Mr. Wm. Smalley, of Spotsylvania, Virginia.

With much respect, yours, J.

(From late English Papers.)

GREAT FOOT RACE.

On Monday afternoon, the long-talked of match between Sheppard and Stevenson, for 400*l.* a-side, a length of ten miles, came off on Lord's Cricket Ground, St. John's Wood. At a little after five o'clock the two competitors made their appearance ready to start. They each wore a pair of short cotton drawers. Not long past five o'clock they started. Sheppard, as usual, bounded off with good heart; Stevenson was rather more in a flutter, but confident enough, and although Sheppard had the lead at starting, within the distance of the first and second miles Stevenson passed him; but Sheppard shortly after recovered his first place, and took the lead, which he kept till the fifth mile, on which bets had depended, had been completed. After the eighth mile, Stevenson took the lead, and kept it till the race was finished. The advantages on either side throughout the race never exceeded a couple of steps, and frequently not half that distance.—The ground was so laid out that it required the space to be three times run over to complete a mile. When within about 200 yards of the finish, Sheppard was within two steps of Stevenson, and then the grand tug commenced. Sheppard let out, and Stevenson increased his mettle; each went to their utmost speed. Stevenson gained ground at every stride, and Sheppard in equal proportion fell off. At the winning point, when Stevenson had reached the goal, he had outstripped Sheppard about 30 yards. The distance of ten miles was completed in 53 minutes and 23 seconds. At starting, six to four had been betted on Sheppard; but after the race had commenced there was no such thing as getting on a bet; for from the soundness of wind and the easy action which Stevenson exhibited, he immediately became the favourite.

A few days ago, Peter McMullen walked 110 miles on the Town Moor here, within 24 hours.—This evening, (Monday,) Mary McMullen, his mamma, a woman of 64, is to commence walking 92 miles in 24 successive hours. [*Tyne Mercury.*

MISCELLANEOUS.

CLIMATE OF OHIO.

[We publish the following interesting abstract from a meteorological journal of Doctor Hildreth, of Marietta, Ohio—and should be glad to furnish, also, the result of like observations made in Baltimore during the same period. Facts, indicating the nature of the climate, and its effects in the different quarters of our country, cannot fail to have a useful influence on agriculture.]

Abstract of Meteorological Journal—Marietta, Ohio, from January to July, 1828.

	Day.	*Thermometer.*		*Rain.*		*Weather.*
		highest.	lowest.	inch.	12ths.	
January,	6th & 22,	69	10	4	½	Violent gale of wind from the west on the 27th, began at 4 P. M.
February,	2d & 13,	70	17	6	9	Elm in blow, and bees at work, the 1st and 2d of this month.
March,	29 & 17,	83	22	2	2	Black birds seen, 8th of March.
April,	23 & 5,	82	22	6	6	Frosty first of the month; killed peaches, &c.
May,	4 & 8,	92	35	6	6½	Frost, 8th of May—Tulips in blow, 1st May.
June,	26 & 1,	94	48	4	11	Raspberry ripe, 7th June.
July,	24 & 4,	90	51	4	6	Great shower, 13th July—fell 2½ inches in 1½ hours.
				35	5	

Rain in six months, thirty-five inches and five-twelfths.
Prevailing winds, from W. to S. W.
N. B. Rain in same months, 1827, twenty four inches and two-twelfths.

(From the New York Statesman.)

On Black Dyeing as applied to Woollen Cloth and Hats.

The dyeing of black has deteriorated so much within the last forty years in England, and in this country as the copyist of England, that the colours would be considered as unwearable, were not the cloths as evanescent in their fabric as the colours are fugitive. The faint miserable colours given to the blacks in the present day has been mainly the result of the prevailing passion for cheap goods. To meet and indulge that ridiculous unprofitable passion, the manufacturer has been compelled gradually to make his goods in the most flimsy manner, and the dyer to make his colour at as low a rate as possible. So much has the dyeing of black been lowered in the West of England, that a piece of twenty yards of broad cloth, which forty years since was charged thirty shillings, is now done for six shillings and eight pence, and the dyer makes nearly the same profit now as he did then.

Before the year 1790, all the black cloths dyed in England, excepting the coarsest grades, were colored blue in the woad vat previous to their receiving the black dye; and a considerable portion of nut galls was used with logwood, &c. in finishing the colour. All the black cloths brought from England, have a white and a blue rose near the head end. The white rose was designed to show that the cloth was white previously to its being dyed blue; for, as cloths dyed other colours, if found defective, were usually dyed black to cover their imperfections, and as repeated colourings were found to injure the texture of the goods, the dealers would not give the same price for cloths without the white rose. The blue rose was designed to show that it had received the blue dye, and the colour of the rose was considered a criterion of the depth of the blue given. The white and blue roses are still preserved; but the blue is never put on, except by dipping a corner of the cloth in the blue vat, and by tying a rose on that part. Nutgalls, which were found to give permanency to the colours, have also been exploded as too expensive; and the blacks now given to the public, are dyed with only logwood, fustic, and sumach. The latter being the only material in the composition that has any tendency to impart the least degree of permanency to the colour, and that is necessarily used in such small portions, to preserve the blue bloom of the now fashionable colours, as to have but little effect in checking the fugitive dye of the logwood.

The French and the Germans have always made much better black, and given to that coluur a far greater degree of permanency than the English. I am aware that this opinion will be considered as high treason by English agents, through whose influence the most flimsy goods, and the most miserable colours, have become fashionable in this country, and the public taste in this particular, been materially vitiated. To prove the correctness of this opinion, I need only request any citizen, who has an opportunity of doing it, to compare an English black that has been worn three months with a French black that has been worn the same time.

The colour put on hats is even more fugitive than that put on the cloth; and it is high time that our dyers, both of woollens and hats, should pursue some mode of giving more body and permanency to their colours. The primary object of this essay is, to show them how this can be effected, without any additional expense to the operator. I am aware that it would be worse than useless to attempt to bring our dyers back to the old expensive but highly permanent process of giving a woad-blue to their goods before colouring them black, for the public taste has become so highly vitiated by the passion for cheap goods, that firmness of fabric, body, and permanency of colour, and every other quality that gives to them an intrinsic value, are now never taken into consideration.

As giving a blue ground is out of the question, and as the nut-galls, the next most permanent mode, must also be resigned as too expensive, I have to direct the attention of our dyers to a material growing abundantly in this country, which answers even a better purpose than nutgalls, and will cost no more than the process now pursued.

Most persons living in the interior of the country know that the bark of the swamp maple will make good black ink, though they may not be aware that four pounds of this bark, dried and ground, are equal to one pound of the best galls. The black obtained from this bark is equally as permanent as that from galls, and as the bark gives a much smaller portion of extraneous precipitate, it will clean better, and make a much brighter colour. Those dyers who formerly used nut-galls will know what quantity of swamp maple to use to a given quantity of logwood; but I would suggest to more modern dyers to leave out one pound of logwood for every pound of bark used by them.

Some few of our woollen dyers have, at my suggestion, used the maple bark for three or four years, and their colours are much esteemed both by dealers and consumers. Should the colours prove too blue, they may be altered to any hue by the use of sumach or alder bark. W. P.

THE FARMER.

Baltimore, Friday, November 14, 1828.

☞ The regular monthly meeting of the Trustees of the Maryland Agricultural Society, which was to have been held yesterday at Homewood, the residence of Charles Carroll, Jr., Esq., is postponed to *Thursday next*, the 20th inst., at the same place.

☞ Two pair of fine knit woollen hose, marked R. B., and a fine wrought silk fishing line with a hook attached, were lost at the late Agricultural Fair. It is supposed they were carried off by mistake in the hurry of removing the articles of domestic manufacture. Any person having them, or any of them, in possession, will confer a favour by sending them to the office of the American Farmer.

Captain Basil Hall has addressed a letter to the Editor of the *Caledonian Mercury*, correcting a statement which has been made respecting the distance travelled by him in America. Captain Hall says, "I left Liverpool on the 17th of April, 1827, and landed again at Cowes, in the Isle of Wight, on the 22d of July, 1828, making the whole interval fifteen months and five days, in which time the distances gone over were as follows:

By land conveyances, - -	3588
By steam vessels, - - -	5237
Total distance travelled in America	8825 miles.
Then for the two sea voyages, say	7675
Which makes the whole - -	16,500

So much for my 'walk,' as the papers call it; but as for the 'Book,'—which I learn from the same source is in the press, I can only say that not one line of it is yet written."

Important News from Colombia.

By the packet brig Tampico, arrived at New New York on Saturday last, from Carthagena, information was brought that on the morning of the 26th of September an insurrection broke out at Bogota, headed by the late Vice-president Santander and General Padilla, having for its object the *assassination* of Bolivar and a revolution in the government, at the head of which Santander was to be placed. Padilla was in prison at the time, awaiting his trial for his conduct in Carthagena in March last. Colonels Ferguson and Bolivar were murdered, and the Liberator saved himself from a like fate by escaping from a back window of the palace. He was pursued, but hid himself under a bridge, where he remained in water to the middle, three hours, till his partizans drove out the conspirators.

A brigade of Artillery was seduced from their allegiance and bribed by the conspirators—their reward was to be the plunder of all the foreigners in the city, who would probably all have been massacred, had the conspirators succeeded. The latter were, however, repulsed, and order was restored.—Many arrests had taken place at the latest dates, and some executions, and the bloody scenes were progressing. *Santander* was ordered for execution.—A letter adds, "every thing very dull and no chance of improvement."

A letter from Carthagena, under date of October 8, says:—"The last private advises from Bogota state that the execution of *Padilla* and Hooment would take place on the following day. The execution of SANTANDER was to take place as soon after as the necessary formalities could be gone through with."

(From the American of Wednesday)

THE FLOUR AND GRAIN MARKET.

The advanced prices of Flour, alluded to in our Review at the close of the last week, have been, subsequently, fully supported in this market. On Monday morning small sales of Howard street flour were made from the stores at $9 per barrel. Yesterday the wagon price for this description was $9.25, at which rate it was readily taken; and holders were asking, from the stores, $10 per barrel.—The stock of Howard street flour is quite light, and the supplies come in moderately. On Monday afternoon, two lots comprising 800 barrels City Mills flour were sold at $9.50, cash. We heard of no transactions yesterday; holders demand $10 per barrel.

Sales of good red *wheat* were made yesterday, at $1.95 a $2 01 per barrel. Sales of *rye* at 67 cents. Sales of *corn* at 62 a 65 cents.

A sale of 200 barrels first proof *whiskey* was also made yesterday, at 28 cents per gallon.

Our correspondents of the New York Journal of Commerce have forwarded us, in anticipation of their regular publication, the following particulars respecting the state of the markets in New York, at the close of the week:

FLOUR continued through the week the article of principal interest; prices advanced rapidly from day to day until Friday, when they stood $2 above our report on Monday, and sales were made of Canal at 9 5-8, and choice brands at $10. Howard street, $9¾ a $10, and all other kinds at $9½. On Saturday the same prices were maintained with however, but few sales. There seemed a disposition to pause for a while. The stock is very small, so that whether the expectations of speculators are realized or disappointed, no great damage is likely to ensue, for an invoice of all the parcels in market if made at $10 per bbl. would hardly foot up $200,000. The accounts from Europe speak every where of an advance in prices, but we notice that in several places large quantities of wheat were brought forward, and in one market at least the supplies were larger than had been known for years. Rye Flour advanced to $1¼ a ¾, at which prices sales were effected. Indian Meal also advanced; bbls. were sold at $3½ and hhds, at $15.

GRAIN.—10,000 bushels of Southern Wheat were sold on Saturday at $1.93¾ cash, a higher price than was obtained on any other day. There were no arrivals of Gennessee, but we learn that a sale was made in Albany of 2000 bushels at $2. Considerable Rye was sold at 80 and 81 cents, which is an advance of 12 cents. Corn also advanced, and was sold at 60 cents for Northern and 50 cents for Southern; Barley sold at 70 cents, and Oats at 36 cents.

(From the Alexandria Gazette of Tuesday.)

FLOUR.—The price of Flour during the early part of last week fluctuated from 6.75 to $7.00 until the news from England to the 3d of October was received; it then advanced to $8.00, at which price it closed on Saturday from wagons. The news received yesterday by the Leeds, up to the 8th of October, advising of a further advance in England in the price of grain, has had the effect to advance the price of flour—To-day 50 cents from wagons upon Saturday's prices. Some small sales have been effected to-day at $8.62½ to 8.75; holders generally ask $9.

(From the American of yesterday.)

In making our inquiries relative to the markets, we find that the prices of flour were not as well supported yesterday as on the two preceding days of the present week. The prevailing price of Howard street flour from the wagons, was $9 per barrel, being a reduction of 25 cents per barrel from the rate of the previous day. A sale of 200 barrels Howard street was made yesterday at 9.12½, and another lot at 9.25. Supplies of this description have been coming in quite freely since Tuesday at noon, a circumstance naturally to be expected in the present state of the markets. In City Mills flour we have heard of no transactions.

A cargo of *white wheat* was sold yesterday at $2.02 per pushel. *Corn* experienced no alteration from Tuesday's prices—62 a 65 cents per bushel. A sale of Susquehannah *Barley* was made yesterday at 75 cents per bushel.

The flour market of New York, on Monday at noon, is thus spoken of by the Journal of Commerce:

"Flour, to say the most, is no higher this morning, and we think that sellers, though very ready to accept the prices quoted in our review of this morning, have been able to effect but few if any sales."

VINEYARD FOR SALE.

Containing between 6 and 8000 Grape vines of the most approved kinds, for table and wine (principally table) most of them imported from Europe expressly for this establishment, and are warranted to bear ripe grapes. It is about ten miles south of Philadelphia in a very favourable situation and soil.

The Farm contains between 90 and 100 acres, of which about one half is young thriving timber; about 10 acres of meadow. It has a good two story frame house and barn; a pump of excellent water near the door; several springs, and a small never failing stream of water running through the place; the fences are mostly new and in good order; a marl bed is on the premises.

Such as may wish to embark in the cultivation of grapes may here obtain what has cost the present proprietor years of labour and expense to bring to its present degree of perfection and who is induced to sell it only because his occupation in the city will in future make it inconvenient for him to give that personal attention to the business which such a concern will necessarily require. To a purchaser not thoroughly acquainted with the culture of grapes all necessary information will be given. Should a suitably qualified tenant apply before the vineyard is sold, it will be rented on a lease of ten to twenty years, or for any shorter period. No tenant need apply who cannot furnish undoubted testimonials of his ability to manage such a concern, but such an one may have the vineyard upon advantageous terms as the owner would prefer that to selling. In case of a sale the terms of payment will be made very easy to the purchaser.

All communications sent to the subscriber, post paid, will receive prompt attention.

SAMUEL WEBB, *No.* 305, *Mulberry street*,
Nov. 14 PHILADELPHIA.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c ; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want.

JONATHAN S. EASTMAN,
No. 36 *Pratt-st., Baltimore.*

P. S. Agents for J. S. Eastman, where gentlemen can leave their orders.

Messrs. Jona. Alden, Philadelphia.
Barr, Anchincloss & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C. & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savannah, Geo.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,
No. 4, Bowly's wharf.

TOBACCO.--Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3 00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 9.50 Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $10.50 *a* 11.00—super. Howard-st 9.00 *a* 9.25; city mills, 8.50 *a* 8.75; Susquehanna, none—CORN MEAL, per bbl. 3.00—GRAIN, best red wheat, 1.95 *a* 2.00—best white wheat, 2.05 *a* 2.10—ord'y to good, 1.75 *a* 1.90--CORN, old, .62 *a* .65—new corn, .55 *a* .60—in ear, bbl. 2.00 *a* 2.75—RYE, bush. .60 *a* .65—OATS .22 *a* .24—BEANS .75 *a* 1.00—PEAS .45 *a* .55—CLOVER SEED, 5.00 *a* 5.50—TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .10—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds 1st proof, .27—bbls. .28 *a* .29—WOOL, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual —HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—BACON, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

There is a little depression in the grain market yesterday, but red wheat cannot be quoted higher than $1.95 *a* 2.00; ordinary to good at 1.75 *a* 1.90 Howard-st. flour, out of stores, 9.00 *a* 9.25; city mills, 8 50 *a* 8.75. A cargo of Susquehanna flour has just arrived and stored. Whiskey has advanced one cent to-day, and may be quoted at 27 cts. in hhds. and 26 to 29 in bbls.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

OF TRAINING HORSES.

(*Continued from p. 275.*)

Horses are trained for various purposes, but principally for carrying our persons or drawing our burdens. Formerly, burdens were principally borne on the back by pack-horses; but the improvements in our roads have removed them from the back, to machines called carriages, drawn by means of harness applied over the person of the horse. Under saddle, we train horses as racers, hunters, hacknies, or troop horses. In harness we use them in coaches, stages, chariots, and various lighter vehicles, or we employ them in wagons, carts, ploughs, and various other agricultural or commercial machines. Horses are held in obedience by means of bridles, with appendages called reins, which are long or short, as used in riding or driving. Horses are directed and urged forward by whip, spur, and language; and they are chastised by the same means.

The directive language used to horses ought to be every where the same, which is the more easily accomplished, as words or phrases are sufficient for giving every requisite direction to a horse. The first of these words may be "on," or go on, or merely the common chuck of the tongue, &c., as used by all coachmen in the world; the second to make the horse go to the right-hand side, "right-hand;" the third, to the left-hand side, "left-hand;" the fourth, to make them stop, may be "stop," or "stand still." Any attempt to modify these directions, ought to be given in the correct language of the country, and not in provincial words, as go on, slowly, briskly, right-hand, a little round, or turn, left-hand, a little, or left-hand and round, stop, or stand gently, &c. As a proof that only four words are requisite for giving every requisite direction to horses, we may mention that foreigners in Stockholm, Petersburgh, and Moscow, who know nothing of the language, require only four corresponding words of Swedish or Russian, to direct the native coachmen and sledge drivers to any street, house, or place, the situation of which they know by the maps, or otherwise.

The three natural and ordinary movements of horses are, walking, trotting, and galloping, to which some horses naturally add another, which is known by the name of "ambling," or "pacing;" the trot is, perhaps, the most natural motion of a horse; but the pace, and even the gallop, are most easy to the rider.

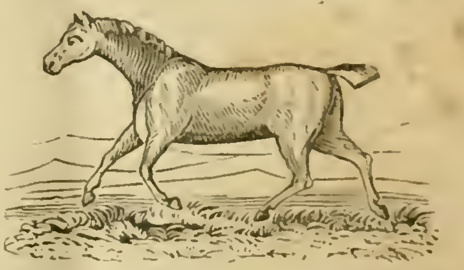
In training saddle horses, the first thing is to make them familiar with man, and other general objects, and which is best effected at the earliest periods, which then saves almost all the trouble of breaking, and docility follows as a matter of course: to effect this, the greatest kindness should be used to the colts from the moment they are dropped: they should be accustomed to be handled, should be fed with bread, patted in various parts of the body, have light matters put on their heads and backs, and objects of different colours and forms should be shown them with caution. While at foot, the mare and foal should be led out into roads, and where carriages pass, during which time nothing should be allowed to intimidate the foal. By this management, the animal will be easily prepared for the future operations; and it is thus that the single foal the ploughed land farmer breeds, and which daily follows the mother in her work, as it were, breaks itself.

Backing is the next operation, and if the colt has been judiciously used, and taught familiarity and docility by early handling and kindness, it is by no means difficult. It should be commenced before the colt is two and a half or three years old. The first backing of a horse is a thing of great consequence, as his value afterwards very much depends on it. The application of the saddle should be gradually done, and without alarm to the horse. After a colt has become habituated to the saddle and bridle, and has been exercised some time, morning and evening, in them, and become somewhat obedient, he is to be taken to some ploughed lands; the lighter the better; he must be made to trot over these in the hand sufficient to slightly tire him. This should be at first done in a cavesson to insure obedience, care being taken that all the tackling be good and firm, and every thing in its due and proper place; then a person is to hold his head and another to mount him; but this must by no means be done suddenly, or at a jerk, but very gradually and slowly, by several risings and heavings. If he bear this patiently, the person is to seat himself firmly on his back; but if he be troublesome and not tame enough, the person is to forbear the attempt to mount, and he is to be trotted in the hand over the same ploughed lands again, till he is more fatigued and willing to receive the rider quietly on his back: when this is done, the person who is on his back, must encourage him, and the man who has his head must lead him a few paces forward, all the while encouraging him. The feet are to be fitted well in the stirrups, and the toes turned out; afterwards the rider is to shrink and move himself in the saddle, and the person who holds his head is to withdraw his hand a little farther from the mouth. As the rider moves his toes forward, the holder must move him forward with the rein, till he is made to apprehend the rider's motion of body and foot, which must always go together, and with spirit, and will go forward without the other's assistance, and stay upon the restraint of the rider's hands. When this is accomplished, let him be cherished, and again have grass and bread to eat; and then let the rider mount and alight several times, encouraging him between each time; and thus he is to be managed till he will go on, or stand still at pleasure. This being done, the long rein may be laid aside, and the band about the neck, which are always used on this occasion, and nothing will be necessary but the trenches and cavesson, with the martingal. A groom must lead the way before; or another horse going only straight forwards, and making him stand still when desired. In this manner, by sometimes following, and sometimes going before another horse on the trot, the creature will by degrees be brought to know that it is his business to be quiet and governable.

To teach a horse the different movements of walking, trotting, galloping, and *ambling,* comes next in order.

Walking is the slowest and least raised of all a horse's movements. It is performed, as any one may observe, by the horse lifting up its two legs on a side, the one after the other, beginning with the hind leg first. Thus if he leads with the legs of the right side, then the first foot he lifts is the far hind foot, and in the time he is setting it down, (which in a step is always short of the tread of his fore foot on the same side,) he lifts his far fore foot, and sets it down before his near fore foot. Again, just as he is setting down his far fore foot, he lifts up his near hind foot, and sets it down again just short of his near fore foot. This is the true motion of a horse's legs in a walk; and this is the pace in which many things are best taught. For instance, when the horse is to be taught to turn to the right and left, or from one hand to another, he is first to be taught it on the walk, then on the trot, and finally on the gallop. The walk is a pace to which team, carriage, and road horses should constantly be well broke, as being of great use in all such cases and intentions. It is an excellent pace too, in a saddle horse, when well performed by being properly taught.

In trotting, the limbs are diagonally employed; but their tenses or times, or rising and falling, are very different, as it is conducted slow or fast. In the slow trot the diagonal legs are elevated and replaced simultaneously; while those on the ground are preparing to elevate themselves, and the horse is for a moment on tiptoe; but until the original diagonal legs are set down, these are not wholly elevated: therefore the horse is during the moderate trot at no time without support. But it is very different when the trot is accelerated, to nine or ten miles an hour; for then there is a period in every spring made by the diagonal members, when all the feet are in the air at the same time, and the body completely suspended from the ground by these means. Thus during this accelerated action, the off fore leg and near hind leg having been elevated in the air before they meet the ground, the near fore leg and the off hind one are not only prepared, as in the slow trot, to elevate themselves, but actually do so before the others are set down; consequently, the feet at this precise time must be all in the air. To speed in the trot, it is necessary that a horse pick up his feet quick, and extend them far forward. To the safety also, it is necessary he elevate his knee; at the same time the general elevation of the whole is operated by high withers, and oblique shoulders.



Three qualities are essentially necessary to make the trot useful. It ought to be extended, supple, and even, or eqeal: these three qualities mutually depend upon each other, so that you cannot pass to the supple trot, without having first worked upon the extended trot; and you can never arrive at the even and equal trot, without having practised the supple. The *extended* trot is that in which the horse trots out without retaining himself, being quite straight and going directly forwards; and this consequently is the kind of trot with which you must begin. The *supple* trot is that in which the horse, at every motion he makes, bends and plays his joints by the elasticity of the organs composing them; as those of his shoulders, his knees and feet, which no colts or raw horses can execute, who have not had their limbs suppled by exercise, and who always trot with a surprising stiffness and awkwardness, without the least spring or play in their joints. The *even* or *equal* trot is that in which the horse makes all his limbs and joints move so equally and exactly, that his legs never cover more ground one than the other, nor at one time more than another. To do this, the horse must necessarily unite and collect all his strength, and, if the expression may be allowed, distribute it equally through all his joints. To go from the extended trot to the supple, you must gently and by degrees hold in your horse; and when by exercise he has obtained sufficient ease and suppleness to manage his limbs readily, you must insensibly hold him in still more and more, and by degrees you will lead him to the equal trot.

The manner of trotting a colt who has never been backed, is as follows: put a plain snaffle in his mouth; fit a cavesson to his nose, to the ring of which tie a longe of a reasonable length. Let a groom hold this longe, who, having got at some distance from the colt, must stand still in the middle of the circle which the horse will make. Let another follow him with a long whip or chambriere in his hand. The colt being alarmed, will be forced to go forward, and to turn within the length of the cord, the groom must hold it tight in his hand; by this means he will draw *in*, or towards the centre, the head of the colt and his croupe, will of consequence be without the circle. In working a young horse after this manner, do not press or hurry him. Let him walk first, and afterwards put him to the trot. If you neglect this method his legs will be embarrassed; he will lean on one side, and be more upon one haunch than the other; the inner fore foot will strike against the outer one, and the pain which this will occasion will drive him to seek some means of defence, and make him disobedient. If he refuses to trot, the person who holds the chambrière will animate him by trotting him, or striking the ground with it. If he offers to gallop instead of trotting, the groom must shake or jerk the cord that is tied to the cavesson, and he will fall into his trot. (*Berenger's Art of Horsemanship*, vol. i. ch. 4.) The value of this longeing in a circle is incalculable, inasmuch as it supples the shoulders, and gives them a greater extent of action. It also increases the action of the whole limb downwards, and accustoms the horse to effect other movements, to be performed with an elevated hand.

The gallop is the swiftest natural pace of a horse, performed by reaches or leaps; the two fore feet being raised almost at the same time; and when these are in the air, and just ready to touch the ground again, the two hind feet are lifted almost at once. In galloping, the horse may lead with which fore leg he pleases; the most usual way is that with the right, in which case the gallop is said to be *just;* but whichsoever it be, the hind leg of the same side must follow it next, which forms an even or equal gallop; otherwise the legs are said to be disunited, and the gallop to be false; to remedy which disorder, the rider must stay the horse a little on the hand, and help him on the spur on the contrary side to that on which he is disunited. However, this rule has not been always strictly observed; for hunting horses have been trained to lead indifferently with both legs, because it has been found, that a horse which has never been suffered to gallop but with his right fore leg, has been worn out on one side, when he has been fresh and sound on the other. In order to make a stop in a gallop straight forwards, the rider should carefully put his horse together, without altering or disturbing the appui, and throw his body back a little to accompany the action, and to relieve the horse's shoulders. In doing this he should seize the time of making the stop, keeping the hand and body quite still, exactly when he feels the horse put his fore feet to the ground, in order that by raising them immediately by the next motion which he makes, he may be upon his haunches. When horses do not put out their strength sufficiently, they should be galloped briskly, and then slowly again by turns, and they will thus be compelled to obey the hand and heel. In the slow gallop, as well as in the trot, it is sometimes necessary to close the heels to the horse's sides, which is called *pinching;* but this should be done in such a manner as not to make the horse abandon himself upon the hand, and care must be taken that he be upon his haunches, and not upon his shoulders; and, therefore, when he is pinched, he should be kept in the hand. To put a horse well together, and make him bring his hinder legs under him, the rider must close his legs upon him, putting them very much back; this will oblige him to slide his legs under him; at the same instant let the hand be raised a little to support him before, and yielding again immediately. Let him be thus supported, and have the rein again from time to time, till he begins to play and bend his haunches, and gallops leaning and sitting down, as it were, upon them; let the rider then press him with the calves of his legs, and he will thus become quick and sensible to the touch. If a horse has too fine a mouth, gallop him upon sloping ground; this will oblige him to lean a little upon the hand, in order the better to put himself upon the haunches; and through fear of hurting his bars, he will be prevented from resisting the operation of the bit. If the horse is heavy in hand, gallop him up sloping ground; and when his appui is too strong, this will lighten him. The gallop serves to assure and make steady a weak and delicate mouth, and also to supple a horse, and make him steady and active in his limbs. (*Berenger's History and Art of Horsemanship*, vol. ii. p. 104, &c.)

In galloping in a circle, the horse is confined always to lead with his fore leg, within the turn; otherwise he is said to gallop *false.* But here, too, the hind leg of the same side must follow. The varieties of the gallop are a *hand-gallop*, a *Canterbury-gallop*, a *school-gallop, &c.* A smooth gallop, close to the ground, the French call the English gallop, *galop a l'Anglois.*

The canter is different from the gallop in some essential particulars. Whether the gallop be fast or slow, still the legs are at one period wholly removed from the ground, and the horse is all in air. In the canter, on the contrary, at no period is the horse completely elevated from the ground, but has always one or more points of contact with it. Blaine describes its operation thus: when performed on the right, the horse commences by first placing his off hind leg a little beyond the other; at nearly the same instant he elevates the fore hand, and places first the near fore leg on the ground; the off doubling over and beyond, is placed in an instant after it. In the next movement the hind legs are thrown in, and, while elevated, the off fore leg becomes raised from the ground; but the near fore leg is not elevated until the hinder ones are replaced.—The near fore leg is, therefore, the whole point of support in cantering at each remove, and thus it is that cantering horses always first fail on that leg.

The amble is a peculiar kind of pace, by which the horse changes sides at each remove, two legs of a side being always in the air, and two on the ground. An amble is usually the first natural pace of young colts, which as soon as they have strength enough to trot, they quit. There is no such thing as an amble in the manege; the riding-masters allowing of no other paces besides walk, trot, and gallop; their reason is, that a horse may be put from a trot to a gallop without stopping him; but not from an amble to a gallop without stopping.—This movement, which is very laborious to the horse, and in which he ought not to be indulged, except on smooth ground, is very easy to the rider; it has not the hardness of a trot, because the hind leg moves along with the fore one, and creates no resistance to the motion. It is, however, now never taught, and therefore any directions regarding it would be useless.

The training of cavalry horses is exclusively performed in the military establishments, and therefore can never be required of the farmer or breeder.

The training of coach horses commences with taming, walking, trotting, and repeated longeing; and next with yoking and driving in a break or four-wheeled frame, with no other load than that of the coach box or seat placed in the usual position, the driver and his assistant sitting on a board fixed to the perch or hind axle, in order to be ready at a moment's notice, to descend and restrain, or direct the horses. Coach horses, from fifteen to sixteen hands high, should walk light five miles an hour, and trot twelve. They should be first accustomed to this exercise in the country, next in the outskirts of a large city, and lastly in the most crowded streets.

The age at which a horse is fit to be worked in a coach, is four and a half or five years; but by the fraudulent practice both of the country and town dealers, horses of three and four years old are frequently employed. The first business of the Yorkshire dealer, who has three or four year old colts to dispose of, is to draw their corner teeth, in order to make them have the mouths of those of five. They also undergo the operation of docking and nicking; and after having been kept two or three months on mashes, made of bran, ground oats, or boiled corn, they are sold to the London dealers, who, it is said, sell these three or four years old horses as if they were five years old. They are then taken into immediate work, either for the coach or saddle; and in a few months are completely destroyed by this premature and too severe labour. The drawing of the teeth is not a fraud practised on the London dealers; they *know* the deception, and *insist* upon its being done by the country dealers. It is requisite to be done some months before the London dealers finally sell them for use, or the tooth which denotes a horse to be five years old would not be grown, consequently the deception could not have taken place.

The training of cart and plough horses commences with taming before they are a year old, with walking and rubbing them down in the stable when they are two, and with training to work when they are of three years growth. They should be placed under the charge of a very steady careful servant, who will teach them to back, and to go into the shafts. They ought not, however, to be made to draw any other than a very light empty cart, till their fourth or fifth year; nor ought they to be put into the shafts of a threshing machine before their fifth year. The first work to which an agricultural horse may be applied, is harrowing; but this during the fourth year only half a day at a time, or with a light harrow the whole day. Next he may be put to plough with similar care and caution in regard to strength. In general, agricultural horses require very little training; but one thing is too often neglected, and that is, teaching plough horses a quick step, and keeping them at that step ever after in working them. By not attending to this, and leaving the step to be regulated by lazy, spiritless ploughmen, the loss to many farmers is very considerable.

CATTLE SHOW.

REPORT *to the President and Directors of the Washington Co. (Penn.) Society, for the promotion of Agriculture and Domestic Manufactures.*

(Concluded from page 275.)

DOMESTIC MANUFACTURED ARTICLES, will not enable us to do justice to this part of our exhibition. The *Cloths, Flannels, Baizes, Carpets, Linens, Bed Tickings. Coverlets, Hearth Rugs, Stockings, &c.* with several beautiful specimens of *needle work*—were such as to call forth the admiration of every one who beheld them, and to furnish evidence, (were evidence wanting) of the industry and taste of the ladies of Washington county. Amongst the great variety of household manufactures (about 150 in number) nothing appeared to excite greater attention than the *Sewing Silk;* several pounds of which were exhibited, made by Mrs. Axtel, Riggs, Bombarger and Quail, and which we have no hesitation in promising equal to any imported silk we have seen. Whilst on this subject we beg leave to state that we observed with much pleasure a young lady attending our show, from an adjoining county, dressed in most *superb silk*, of a beautiful mazarine blue colour, produced from worms fed by her own fair hands during the last summer. Your committee would remark that the cultivation of the silk worm is very simple, and can be introduced among our agricultural pursuits with the greatest facility. It is within the reach of almost every farmer. The mulberry grows spontaneously and abundantly, and it requires only the labour of children to manage the worms.

No science is necessary; the little girls in New England raise them in barns, and produce good silk, and in large quantities.

Single counties, not half so large as ours, are now selling Sewing Silk to the amount of several thousand dollars annually. Your committee, were also highly gratified in viewing a number of beautiful *Leghorn* and *Gimp Bonnets*—particularly those made by Miss Ewart and Miss M'Clelland, the former of whom made upwards of eighty dollars, and the latter fifty dollars worth of these articles during the last year. Such facts as these speak volumes in favour of our protecting system, and prove incontestably that if the unnatural advantage which foreign competition derives from the political depression of the labouring classes in Europe, is counter-balanced by an adequate importing duty, our home industry and skill will be able to manufacture from the products of our own soil, a sufficient supply of Cloths, Cottons, Silks and Bonnets, without impoverishing our country to pay trans-atlantic artisans.

In the class of manufactured articles, we think it but just to the reputation of Mr. Joseph Huston, as a workman, to mention that the *Cabinet Ware* shown by him was much superior in elegance and finish to any we have seen made here.

The *Plated Ware* of Messrs. Hendricks and Morrison, and the *Edge Tools* of Mr. Martin did great credit to their skill as mechanics.

And we would indulge the hope that the praise so justly bestowed on these gentlemen, will prove an incentive to others of our mechanics to exhibit specimens of their work.

Before closing our observations on the varied productions of our county, exhibited on this occasion, we will notice the specimens of *Currant* and *Grape Wine*, particularly that offered by Mrs. Eckert. It was excellent of its kind, and a very pleasant and palatable beverage, and exhibits in a most favourable point of view her skill and industry in its production.

Your committee have thus attempted to present some idea of the exhibition in a brief and condensed form. We are fully aware of the very imperfect manner in which we have discharged this duty, but we trust the board will at once see the impossibility of any one committee being able to do justice to every different department.

No doubt we have omitted much deserving special notice; but the materials furnished us were such that we can do no better.

We would suggest to the board the propriety of hereafter requiring from each examining committee a full and detailed report of the animals or articles coming under their notice. Let them give praise only where praise is due.

Your committee cannot close this report without noticing (and with pride too) the perfectly good order that prevailed throughout the day.

Notwithstanding the immense multitude present, not one instance of disorder, and scarce one of intoxication was observed. All which is submitted, &c.

George Baird,
Thomas M'Giffin,
S. Workman,
Jas. Reed,
Joseph Ritner,
Committee.

FOREST AND ORNAMENTAL TREES.

Answer to Inquiries.

J. S. Skinner, Esq., *Albany, Nov.* 11, 1828.

I send you the following, in answer to the queries of T. J. R. in the Farmer of the 7th November, so far as experience will warrant.

The maple (sugar,) sheds its seeds in September. This is the time to gather and to sow them. In the autumn of 1826, I gathered a bushel of the seed and sowed it. Not a seed vegetated in 1827, but last spring they came up abundantly. They were sown thickly upon a bed of light loam, and covered with an inch of earth. Their growth has been trifling; but after the second year, if put in nursery rows, I have found by experience that they become much more thrifty.

1. The soft, or white maple, sheds its seeds in May. On the 28th of May, 1827, I had a quantity of the seeds gathered and immediately planted. They grew two feet the first summer, and many of them, which were placed in nursery rows last spring, are five and six feet high. This is one of the quickest growing trees we have, particularly on moist and wet soils, to which it is particularly adapted. It is ornamental, and makes good fuel after it has become partially dry.

2. I have repeatedly planted horse chestnuts in April, with unvarying success, and have nearly four thousand growing, of different ages. The only precautions I would suggest, are, to take care that the nuts do not become heated and rancid, and that they are not covered with too much earth. From one to two inches is the proper depth to plant. They are fond of a rich, tenacious soil.

5. Beech masts are most successfully planted when they naturally fall from the tree, in autumn, and should be slightly covered.

6. I have planted ash keys in April. A few came up the first summer, but ninety-nine hundredths of them did not vegetate until they had lain in the ground a twelve month. The white likes a kind loam; the black wet and gravelly locations. Those which came up the first season, and which have grown two seasons, are from two to three feet high.

7. I have not planted any walnuts but the black kind. They were put in the ground in autumn, and vegetated freely. Their growth is rapid since the two first years after planting.

9. Seeds of the mulberry may be planted on a bed of fine mould in May. I have hundreds, and probably thousands, from ten to fifteen feet high, the seeds of which were sown in the spring of 1806. They will soon constitute a fine hedge, where protection from winds is desired.

11. The seed of the buttonwood may be gathered any time during the winter or spring, and sown in April. I sowed in the spring of 1827, and some of the plants are now four to five feet high. This tree may also be propagated by cuttings.

13. The common locust (*robinia pseudo-acacia*,) is propagated by seeds and succors. The seeds are surrounded by a glutinous shell impervious to cold water. They should therefore be steeped in water nearly, or quite at the boiling point, and sown when you plant beans, as the plants are, when young, very sensitive to frost. When once established, it is difficult to eradicate them, as they send up sprouts wherever the root is sundered or bruised. They are of quick growth, and constitute a valuable timber.

The glutinous resembles the common in its appearance, habits and rapid growth, and is equally prolific in succors. It flowers beautifully, but mine have not produced seeds.

The three thorned or horny locust, as it is called, (*gledischia*,) grows freely from seeds, sown in the spring. I have planted some thousands of these in hedge, with a strong confidence of their proving an excellent plant for live fence. Their growth is rapid, and the wood very hardy and compact.

14. I gathered and sowed the seeds of the elm, on the same day (28th May,) that I did the white maple. The best plants are now from two to four feet high.

I have had no experience with the birch, chestnut tulip, pine or oak, and am only commencing my experiments upon the firs; and shall therefore say nothing of the manner of propagating them, except to observe, that nature is the best guide in these matters. Follow her laws; plant when the seed falls from its parent tree, and we shall seldom fail of success. Michaux's North American Sylva may be consulted by your correspondent with profit.

Your correspondent seems to be in the condition of a political candidate for office, perched on an eminence, a mark for every angry wind that blows. I advise him to remove into the vale, out of the reach of the envious elements; or if this cannot be done, to encircle his villa with all the variety of trees that will grow upon his grounds, and by no means omitting fruit trees and evergreens. They may be thinned and fashioned to his taste as they advance in growth. The seeds of all he has enumerated, and many others, may be easily procured; and the expense of nurturing the young plants will not be felt by a gentleman of his ardor in rural and useful improvement.

With an ardent desire that your correspondent's zeal may prove contagious, and that he may obtain a seat in Congress to reward you for your meritorious labours, I subscribe myself, very respectfully,

Your obed't serv't, J. B

Curious Facts in Regard to the Nature and Culture of the Irish Potato.

Mr. Skinner: *Somerset County, Md. Nov.* 10, 1828

Sir,—I took a single Irish potato, (which when taken out of the ground last fall weighed one pound.) The eyes of the potato were first cut out, and the balance of the potato, that had no eyes, was then cut into small pieces, and planted in the same row with those pieces that had eyes. They all came up alike, grew alike, and produced alike. The tops of the Potatoes while growing; were equally *luxuriant*, and the produce of equal quality. The product was counted by Major E. K. Wilson, and Mr. Thomas K. Carroll. There were ninety-two potatoes increase. It is not generally known that the part of the potato which has not *eyes*, will produce equally with the part that has *eyes*. But it is so. I have planted in this way for two years past, and found the *fact* to be so. It frequently happens that persons who are scarce of seed potatoes in the spring, throw away the parts which have no *eyes*, whereas, if they knew that the parts without *eyes* would vegetate and produce, they would be able to plant their crops.

Many persons that saw the *row* of the *potatoes* whilst growing, thought that it would produce from *two to three pecks* But owing to an uncommon long drought, and the potato being planted in ground very highly *limed*, the increase was not more than half the size they would have been, had the season been favorable, and the ground not *limed*. The product was only between one and two pecks

If you think the above will be of any benefit to the community, and worthy of a place in your useful work, "*The American Farmer*," you may insert it. I am, sir, very respectfully, yours, &c.

JOHN C. WILSON, Sen.
Westover.

N. B.—I planted the potato the last week in June.

An Irish potato is impregnated throughout with the vegetating quality.

Seed-Corn.—Soaking seed-corn in copperas water will destroy the wire and cut worms, and accelerate the growth of the corn. Warm the water, make it strong with copperas, and soak the corn forty-eight hours before planting.

Sea-sand, when used as a top dressing upon grass land, either alone or with mould, never fails to bring forth for a succession of seasons, a very sweet and valuable herbage.

CROPS IN VIRGINIA.

Extract to the Editor—dated

Nelson, Va., Nov. 7, 1828.

"We have got through the summer and fall thus far, without rain enough at any one time to wet the ground, until within a few days past. The crops of corn do not exceed the half of an average crop. The tobacco crop is still worse, as it was very much curtailed in the beginning from a scarcity of plants; then was unable to ripen from excessive drought; and, finally, much was cut in October, prematurely, to save it from frost.

"Our pastures were almost destitute of verdure. The clover fields had a deep brown appearance through the summer. A grass, capable of bearing severe drought and grazing, is an important desideratum with us. We hope to find it in the *Dactylis glomerata,* or cock's-foot, which some of us are cultivating; and for which, should we not be disappointed, we may thank the American Farmer.

Yours, T. M."

HORTICULTURE.

TEA SHRUB, &c.

Linnæan Botanic Garden, near New York,
J. S. Skinner, Esq. *October* 30, 1828.

Sir,—I perceive by foreign publications, that the tea shrub has been naturalized to Java, and from this circumstance, and that of some very large plantations being now under successful culture in Brazil, it may be reasonably inferred that the Chinese monopoly will cease at no very distant period. Situated, as we are, with climates so suitable as those of Florida, of lower Louisiana, Georgia and the Sea Islands, is it not astonishing that the attention of our citizens of the South has not been pointedly drawn to its extensive culture. The coffee, pepper, cinnamon, nutmeg, clove, &c. are very tender, and impatient of any cold; but, unlike them, both the green and bohea tea shrubs are comparatively very hardy plants. They will bear the winters of England unprotected, and I presume also those of North Carolina. Both of the species are beautiful evergreens, of easy culture, and produce abundance of white, showy flowers, about the size of a half dollar. I have recently, by way of experiment, engrafted them on the *Camellia,* or Japan rose, and have now the two growing together by this process.

I notice that a gentleman of your vicinity has the past season had the Riband Sugar-cane to make great growths. I have also a number of plants of it, which have thrown up shoots of great vigour; and I agree with a writer in one of your papers, that the time may arrive when its culture will be extended much farther north than heretofore; and as we are continually making new discoveries of the riches of the vegetable kingdom, we may, perhaps, hereafter discover some species which will even support the rigour of our northern winters. The Aracacha, used as a substitute for the potato in Colombia, and relative to the uses of which you published a copious dissertation some time since, has flourished remarkably in my garden the present season, and I have at least fifty plants of the white and the green varieties. The original potato, obtained by Dr. Mitchell from Chili, has also flourished and increased abundantly, and I have near a bushel now from six potatoes received in the spring of 1827. I noticed that the stalks were of a purplish colour, and that they throw up shoots at least three feet from where the main ones are; their roots must consequently extend more widely under ground. The Wilmot-strawberry, mentioned in your paper last year as so desirable an acquisition, is now in successful culture here, and has produced fruit of very great size the present season. I have formed a large specimen plantation of this, and near fifty other fine varieties, and I hope you will visit me next June to test their merits.

Yours, most respectfully,

WM. PRINCE.

RURAL ECONOMY.

(From the New England Farmer.)

CIDER MAKING.

The general process is understood, but attention to two or three particulars may greatly increase the liquor.

Use water freely in making every thing sweet and clean before you begin, but very sparingly afterwards.

Put your apples, after being gathered, for a few days in a dry place, exposed to the sun.

Let your casks be perfectly sweet.

See that the straw used be clean and bright.—Throw all the rotten, or rotting apples to your pigs. Keep the several sorts of the apples separate; if ground together the cider will not be so good.

When the liquor has undergone sufficient fermentation to throw off the impure matter in it, and while it is yet sweet take a clean cask, put in it a bucket of cider, set fire to a clean rag that has been dipped in brimstone, let it burn inside the cask so as to fill it with the fumes of the brimstone, shake the cask well, then fill and bung it tight.

This mode is highly recommended to preserve the cider sweet, while it will yet be pure. The crab apple should be more extensively cultivated for cider. Liquor, delicious as wine, may be made from it.

Cider.—To improve the flavour of a hogshead, take one gallon of French brandy, half an ounce of cochineal, a pound of alum, and three pounds of sugar candy; beat the latter articles well together, and steep them two days in brandy; pour the whole into the cider, and stop it close six months.

Various methods have been recommended for improving the quality of cider; the addition of other ingredients, filtration through sand, or coal at the press, boiling, pressing and racking. However beneficial any one or all of the above may be, yet to have good cider, great care must be taken in making it.

Let the unripe and rotten apples be picked out and given to the hogs. Let the press, tubs, barrels and hogsheads be well cleansed and freed from acids. Let the straw be bright, having no rust nor mould, and the little water that may be used, soft and clear.

After the apples are converted into fine pomace, it should be suffered to remain until it undergoes the proper fermentation. The time that this will require is from twenty to seventy-two hours, depending on the state of the weather. The greater the warmth the quicker will be the fermentation. The colour of the pomace before it is put on the press should be similar to that of a ripe cherry.

In order that the farmer may be convinced that the pomace should remain sometime before it is pressed, let him mash a few apples, and force out the juice immediately. He will see that it is nearly as colourless as water. Let him again mash a few quite fine, and let them in that state be exposed to the air for twenty-four hours, and pressing out the juice he will find it a rich cider colour. If the experiment is carried further by putting the juices into bottles, and permitting them to undergo the usual fermentation, he will be still more convinced of the impropriety of pressing out the juice immediately after the apples are ground.

Many farmers in the United States get from four to ten dollars per barrel, but the majority do not get two. The latter should buy one or two barrels of their neighbours, and keep it to treat their friends. They should continue this practice until they are able to make such as will bring at least three dollars per barrel.

How to Construct an Ice House to Keep Ice Well in a Low Flat Country or Situation.

Mr. Skinner, *Shelby County, Ky. October* 26, 1828.

Sir—Observing in a late number of your paper, an inquiry for the most approved plan of keeping Ice in low and damp situations, where the humidity of the earth will not admit of excavation so as to place it beneath the surface, I send you the following, which you will publish if it is considered worthy a place in your useful paper. Build a pen of logs of such dimensions as to contain the cubic volume which is required. Another pen three feet larger than the former every way is to be erected: when the inner pen is filled with ice, and well rammed, fill between the inner and outer pen with wheat, rye, or oat straw, which is to be well trodden in; the pen holding the ice to be overlaid with poles, to prevent the straw from sinking as the ice is removed, or sinks by melting: the whole then to be covered with straw, and brought to a point as a common stack. I have known Ice kept in this way throughout the summer; and in the country where straw is abundant, and of but little use, it is a cheap mode of making an Ice House. Yours, &c.

A Subscriber.

LADIES' DEPARTMENT.

FEMALE EDUCATION.

(Concluded from p. 278.)

Plan of Instruction adopted in the South Carolina Female Institute.

1. By the term education, we understand a systematic course of instruction, calculated to form an early habit of attention, and to direct curiosity to things which are essentially *useful;* taking the latter term in its widest acceptation, as embracing all knowledge, connected with the interest and happiness of the individual, and of that society of which she is to form a part.

2. We lay it down as a principle, that *this,* as other things intrinsically valuable, is obtained by the simplest means. The mode of instruction should, in all cases, be adapted to the capacity of the individual receiving it. And to effect this, the most practical plan should be adopted, for awakening the curiosity, improving the memory, and exercising the tender reasoning powers of the child.

3. While we propose to ourselves a *system,* we must take care that this does not interfere with what we owe to the different capacities of pupils, taken *individually;* their previous advantages, powers of apprehension, reasoning, &c. We are not, therefore, to adhere to an *a priori* theory, but take our indications *empirically* from the nature of the case.

4. We are decidedly opposed to that mode of instruction, which gives a precocious developement to the memory at the expense of the judgment; and conceive *that* to be the only efficient plan, which makes an equal demand upon the memory and understanding. The pupil is to have no *sinking fund* of knowledge, but should be made to render an usurious interest for every idea which is acquired. We are aware of the trite and common-place remark, as it regards the imbecility of the mind of a child; but provided the thinking powers be not overtasked, we know no reason why habits of reflection should not be inculcated, even in the *child* Every day's experience will convince us, that the *why* and the *wherefore,* which proceed from lisping

nfancy, must originate in a thinking principle; and early habits of reflection invigorate the faculty which they have a tendency to expand.

5. Care must be taken to avoid every thing like a technical, unvaried arrangement, which produces upon the mind the same effect, that monotonous sounds do upon the animal spirits, and tend to lull the judgment asleep. The thrice-told tale may proceed mechanically from the speaker, and all who have reflected upon this subject, must be aware that there is a kind of scholastic *ritual*, which may be termed the language of the lips, equally deceiving to teacher and pupil. Routine, therefore, where it injures the process of thinking, should, at times, be suspended. On this occasion the mind receives a concussion which is salutary. The *rule* may be repeated, and well repeated, without the scholar's annexing any ideas to it; but the *reason of the rule* is what, on all occasions, should be required. The mind of the scholar must, also, occasionally, be made to take a few steps backward, in order to spring more effectually forward. The subject matter of the present lesson cannot be well understood, if the part has not been well digested. It is, therefore, absolutely requisite, that the teacher have recourse to frequent repetition, judiciously varied; nothing fixes the fact so permanently. The mind must not be suffered passively to grope its way from one lesson to another, only intent upon the present, and never reverting to the past. The teacher must be satisfied, by frequent examinations, that the scholar has retained what she has gone over, and has formed some system in her mind, from her past readings. Without this, the scholar may have gone "through and through her book," and not retain a vestige of what she has studied.

We are to bear in mind, too, that facts are the materials of knowledge, or rather that these *constitute* knowledge; we should, therefore, direct our attention to things, holding words as mere *indices*.

6. In instruction, the simplest principles which can be arrived at, must constitute our data. That *one* added to *one* makes two, is the basis of all numerical rules. We, therefore, proceed from *that* which we know, to *that* which we do not know; precisely as in ascending a ladder, we grasp with our hands those *rounds*, upon which, in a few moments, we are to rest our feet. The mistake of most teachers, as well as of most elementary works, intended for instruction, is—that the youthful tyro must go along with *them;* whereas, on the contrary, they are to go along with the pupil *pas a pas*. Their victories are all done upon paper, not in the field, Instead of drawing one circumvallation after another—taking the mind by regular approaches, and afterwards keeping up the line of communication. they are for gaining possession of it by a *coup de main*. But to accomplish the former, it is requisite to adapt our ideas and language to those of the child; to enter intimately into her habits of thinking and apprehending, and to endeavour to trace those associations, which the infant mind weaves at the most tender age. The pupil and teacher must speak one language, in order that instruction may be successfully imparted and received. Neither is the latter to go in advance of the former, their pilgrimage must be together; and so far from aspiring to reach the summit by a few vigorous efforts, they must be content to measure their joint progress, by looking back to the level from which they have ascended. It is thus, under the benignant and humanizing care of the teacher, that the head and heart of the pupil receive that direction, which influences the individual in after life.

7. The business of teaching *does not* consist in memorizing the text, or in giving technically the answers to a few questions, appended to the text-book. This intellectual *tirc et carte* in a few weeks becomes so easy,

That every whipster has his trade by heart.

There must be a challenge to intellectual skill, in which the understanding and the memory are equally tasked. If scholars, when they take their respective places in their class, "like figures cut upon a dial plate," anticipate every question which shall be proposed, responding in the dull monotonous chime of a cloisteral recluse, numbering the beads of her rosary; wherein consists the advantage which the teacher by his actual presence affords, over what can be derived from the text-book alone? An academy ought to be a literary gymnasium, in which the competitor, even if she fail in obtaining victory, is intellectually strengthened by the nature of the contest in which she is engaged. *That* mental collision, which gives so powerful a momentum to civilized society, is as essential in a school for children, as in a school for adults. It is by this means, only, that enthusiasm can be awakened,* and the love of literary distinction enkindled.† Without these, the whole process is dull, heavy, and plodding, tending to injure that elasticity and spring of thought, which is the very germ of improvement, and to break down the sprightly and imaginative youth into a mere mannerist.‡

8. It will constitute a primary object of *the Institute* to form such a subdivision, in the order of studies, that there will be a gradation from the simplest elementary branches to the higher departments of letters. In order to effect this, mere subordination is insufficient; a subordinate class must, as it respects the instruction imparted, be immediately preparatory to that in advance of it. The translation of a scholar into a higher class, must be but a single step in an ascending series.

9. *The teacher and pupil must understand each other.*—The faculties of the former must bend and mould themselves to those of the latter. It is not the extent of the lesson, but the understanding of it, which is the material point. A few lines well understood, will furnish a more nourishing and invigorating aliment to the mind, than a whole volume dealt out by *avoirdupois weight*. Overcome the *vis inertia* of a sluggish, dull intellect, in this way, and you have done every thing. On this occasion, the teacher is not to despair, if he do not at once succeed; the fulcrum is to be applied again and again. If after much labour on his part, he be unsuccessful, it ought to awaken him to suspect the efficacy of the means which he adopts. Perhaps by attending to the peculiar habits and modes of thinking of his pupil, he may succeed better, by adopting a different course. There is nothing esoterical in all this: the teacher must love his profession, and apply all the energies of his mind to the advancement of the objects, which ought to be peculiarly his.

EAU DE COLOGNE.

Dr. Granville, in his recent book on Russia, gives the following recipe for making *Eau de Cologne*, which was written when he was at Cologne.

"Take of the essence of bergamot, lemon-peel; lavender, and orange flower, of each one ounce, essence of cinnamon, half an ounce; spirit of rosemary, and of the spiritous water of melissa, of each fifteen ounces; strong alcohol, seven pints and a half. Mix the whole together, and let the mixture stand for the space of a fortnight; after which introduce it into a glass retort, the body of which is immersed into boiling water, contained in a vessel placed over a lamp, while the beak is introduced into a large glass reservoir well luted. By keeping the water to the boiling point, the mixture in the retort will distil over into the receiver, which should be covered over with wet cloths. In this manner will be obtained pure *Eau de Cologne*."

SPORTING OLIO.

Pedioree of Speculator Wanted.

Mr. Skinner: *Sparta, Tenn. Oct.* 31, 1828.

Dear Sir—I am desirous to obtain the pedigree of the imported Horse *Speculator*, and have taken the liberty of asking the information through your valuable Journal, hoping that some one of your numerous readers may be in possession of the pedigree, and will do me the favour of sending it to you for publication. Respectfully yours,

A Subscriber.

ARCHIBALD.

Sir—The imported horse Archibald was got by Walnut, his dam by Javelin, (a son of Eclipse.)

He stood at the Vitteto Spring, in Edgefield district, at $25 the season, as advertised by W. Smalley, March, 1813. Your ob'dt servant, F.

Nov. 14, 1828.

ENGLISH SPORTS.

Canine Fancy.—The Bitch Fury, which beat the London Bitch Nettle, at Birmingham, so cleverly, can be backed against any bitch in the world of 19½ lbs. weight, from one to five hundred pounds. A few of her pups may be had at 2*l.* each, on application to the Black Horse, Cashell-street, Birmingham. The Birmingham backers of the Bitch Nettle have been seriously affected with the *nettle-rash*.

A dog, weighing forty pounds, from the country, can be backed against any dog of the same weight in London, for from 5*l.* to 20*l.* to fight at Roache's Pit. The money will be forth-coming at any place appointed.

A Match for 10*l.* a-side, between the Clapham dog Boxer, and the brindle dog Boxer, will be fought at the New Inn yard Pit, Tottenham court-road, on Tuesday evening next.

A Challenge to all the World.—A 22½ lb. Dog can be matched to fight for 5*l.* aside; a 24 lb. dog from 5*l.* aside to 20*l*; a 26½ lbs. dog fur 2*l.* aside; a 28½ lb. dog for 5*l.* or 10*l.* aside; a 30 lbs. dog for 5*l.* 10*l.*, or 20*l.* aside; a 33 lbs. dog for 3*l.* or 5*l.* aside; 36 lbs. one eyed dog for 3.*l.* 5*l.* 10*l.* or 20*l.* aside, on application to Mr. Gardner, Barley Mow, Long Lane, West Smithfield; or Mr. Roache's Pit, West street.

Trotting Match.—A match was made by Mr. Smithson, Wakefield, to trot a pony, 14 hands high, twenty-eight miles in two hours, which was accomplished on Wednesday, three minutes within the given time, for twenty pounds. The distance was performed on the road between Wakefield and Thorne.

Coursing Extraordinary.—A few days since, three grey-hounds belonging to a Worcestershire gentleman, killed twelve hares, five rabbits, and seven pheasants! They appeared quite fresh after the day's sport, and looked wistfully for another run.

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* We cannot but question the truth of this assertion. A pure enthusiasm springs from the constitution of the *mind itself*, from the nature of the subject contemplated, or the interesting *manner* in which it is presented. Emulous feeling, kindled to "enthusiasm," we should dread as a very injurious influence on character.—*Ed. A. Jour.*

† Is this a proper motive in a course of education preparatory to the duties of female life?—*Ib.*

‡ *Interesting instruction* will prevent such evils —*Ib.*

Wonderful Leap.—A leap unparalleled, we believe, in the annals of horse history, has been accomplished in this neighbourhood. On Friday week, as Mr. Brown, of Nuneaton Colltery, was returning in a gig from Coventry, about seven o'clock in the evening, his horse took fright, and running away, leaped at Cotton Toll Gate, which is about seven feet high, when, singular to relate, the animal fully cleared the gate, and bringing the gig after him, and in contact with the upper bars of the gate, which were broken, the gig, with two persons in it, passed over undamaged! Mr. Brown and another gentleman were in the vehicle at the time, and though flung out with great violence, also escaped without any serious injury. [*Coventry Observer.*

SPORTING INTELLIGENCE.

Abstract of the laws which govern the Race Course in Great Britain, as extracted from a late Liverpool paper:

Horses take their ages from May day, i. e. a horse foaled any time in the year 1823, is one year old on the first of May, 1824. Four inches are a hand; fourteen pounds a stone; two hundred and forty yards a distance.

Oath weights are, each to appoint a party to ride without weighing. Feather weight signifies the same. Give and take plates are weights for inches; fourteen hands to carry a stated weight, all above to carry extra, or be allowed the proportion of 7 lb. to an inch. A Whim Plate is a weight for age and a weight for inches. A Past Match is to insert the ages of the horses in the articles, and to run any horse of that age without declaring till you come to the post to start. Hand cap weights are weights according to the supposed abilities of the horses. Plates or shoes are not allowed in the weight.

The horse that has his head at the ending post first wins the heat. Riders must ride their horses back to the winning post to weigh; and he that dismounts before, or wants weight, is distanced. If a rider fall from his horse, and the horse be ridden in by a person of sufficient weight, he will take place the same as if it had not happened, provided he goes back to the place where the rider fell.

Horses not entitled to start without producing a proper certificate of their age, if required; except where aged horses are included, in which case a junior horse may start without a certificate, provided he carry the same weight as an aged horse.

For the best of the plate, when there are three heats run, the horse is second that wins one. For the best of the heats, the horse is second that beats the other twice out of three times, though he doth not win a heat. When a plate is won at two heats, the preference of the horses is determined by the places they hold in the second heat. When three horses have each won a heat, they only must start for a fourth, and their places must be determined by it, though before no difference between them. No distance in a fourth heat. In running heats, if it cannot be decided which is first, the heat goes for nothing, and they may all start again, except it be between two horses that had each won a heat. Horses drawn before the plate is won are distanced.

A bet after the heat is over, if the horse betted on does not start again, is no bet. A confirmed bet cannot be off, without mutual consent. Either party may demand stakes to be made, and on refusal may declare the bet void. If a party be absent on the day of running, a public declaration of the bet may be made on the course, and a demand whether any person will make stakes for the absent party; and if no person consent to do so, the bet may be declared void. Bets agreed to be settled in town, or any particular place, cannot be declared off on the course.

The person who bets the odds has a right to choose the horse of the field. When he has chosen the horse, the field is what starts against him; but there is no field unless one starts with him. If odds are bet without mentioning the horse before the race is over, it must be determined as the odds were at the time of making it. Bets made between particular horses are void if neither of them be the winner, unless specified to the contrary.

At Newmarket, if a bet be made for any particular day in any meeting, and the parties afterwards change the day, all bets must stand; but if altered to another meeting, bets made before the alteration are void. Bets determined, though the horse does not start when the words "absolutely, run or pay," or "play or pay," are made use of in betting. For example: I bet that Mr. Udny's ch. mare Mirandela absolutely wins the King's plate at Chelmsford in 1824. I lose the bet though she does not start, and win though she goes over the course alone.

All double bets are considered as play or pay.

Since Epsom races, 1812, all bets are made in pounds, and not in guineas, as formerly.

Horses running on the wrong side of a post, and not turning back, are distanced. Horses distanced if the riders cross or jostle. Horses that forfeit are beaten horses, where it runs or pays. Bets made on any horses winning any number of plates that year, remain in force till the first day of May. Money given to have a bet laid, not returned if not run. All matches, bets and engagements are void on the decease of either party before determined. An untried stallion or mare, is one whose produce had not started in public at the time of closing the engagement.

In estimating winnings, it is the practice to consider the clear sum gained only, and consequently to exempt the winner's stakes. A winner of sweepstakes of 20 guineas each (three subscribers,) is, therefore, not disqualified from running for a fifty pound plate, expressed to be for horses never won a plate, match, or sweepstake of that value.

MISCELLANEOUS.

METEOROLOGICAL OBSERVATIONS.

Sandy Spring, Montgomery County, Md.
Mr. J. S. Skinner, *Nov. 7th*, 1828.

Dear Sir,—Since my return to this place I have been until yesterday, unable to commence my intended Meteorological observations, and as yet my preparations are very imperfect; but anxious to begin the series, I have remitted for record in the Farmer the few facts collected. In future I am in hopes to be able to make up Monthly Tables.

The local position and features of this part of Maryland are highly favourable to the collection of elements on the temperature of water. The branches of Patuxent, those of East Branch, and of Rock Creek rise from this broken and hilly, though not mountainous tract. The sub-stratum is gneiss; the hills are waving, and in very few places precipitous, giving outlet to innumerable springs of most pure water. The wells are seldom very deep, varying from 15 or 20 to 60 or 70 feet. The mean elevation of surface above tide water, may be assumed at about 500 feet.

There can be no doubt but that too little attention has been paid to the temperature of perennial wells and springs, and too much comparatively, to that of air.

It is my intention to continue a regular course of Thermometrical observations on both elements.—Those on the atmosphere will be conducted at my own house diurnally; but those on water only once monthly.

When making up the tables for my "View of the United States," I became fully convinced that to determine the problem of mean temperature, where local features would admit, that perennial springs and wells afford much more certain elements than does the atmosphere; and again a great advantage is on the side of the former, from brevity of labour. So impressed I am with the correctness of this preference, that I shall request the insertion of a paper in the Farmer on that express subject.

Table

Of the temperature of springs and wells in the vicinity of, and including Sandy Spring, *Montgomery county, Maryland, nearly on the meridian of Washington, and N. lat. 39°7.—taken Nov. 6th and 7th*, 1828. *Mean temperature of the atmosphere, 48¾° Fahrenheit.*

Sandy Spring, on the farm of Edward Stabler,	58°
Spring No. 2, on do. do.	55¾
Edward Stabler's well,	55½
Wm. Henry Stabler's well,	56
James P. Stabler's well,	54⅓
Wm. Thomas' well, No. 1,	54
Do. do. No. 2,	55¾
Bernard Gilpin's well,	55
Caleb Bentley's spring,	56
Edward Porter's spring,	55
Roger Brooke's well,	54
Do. spring, No. 1,	56
Do. do. No. 2,	56
Hannah Briggs' well,	55
Do. spring No. 1,	55
Do. do. No. 2,	55⅓
Basil Brooke's well,	54
Mahlon Chandlee's well,	56
Do. spring, No. 1,	54¾
Do. do. No. 2,	56
William Darby's spring,	54⅓
Mean,	55¼

Remarks.—The last day of October, and the two first of November, were remarkable for incessant and very heavy rain; the mean temperature about 55°. Some of the fountains may have been affected slightly by the rain water; but as the range I took embraced a circle of near three miles diameter, and extended over a great variety of exposure, I feel confident the result gives a very accurate summary of the mean temperature of the month of October, 1828, at Sandy Spring.

According to the principles laid down in chap. x. of Darby's View of the United States, the mean temperature of Sandy Spring ought to be about 1° Fahrenheit below that of Baltimore; and by reference to table 50, page 388, of the same treatise, it will be seen that at Baltimore, in a series of eight years, the temperature of October varies from 50° to 59.33°; the mean of the whole eight years being 54.875°.

I do most ardently wish that experiments, similar to those on which the enclosed table has been formed, could be instituted extensively.

Respectfully, WM. DARBY.

WOOL—TARIFF.

By the following article from the Boston Courier it seems that the late tariff is not satisfactory even to the friends of the "Woollen" or "American System." [*N. Y. Eve. P.*

(From the Boston Courier, Nov. 12.)

Wool.—We learn that Messrs. Wells & Dickinson, of Steubenville, Ohio, sold to one of our manufacturers last week, 40,000 pounds of Wool, which had been transported down the Ohio and New York Canals to Albany, and thence to this city. We regret to learn that this article has experienced a great decline in price since last shearing time, owing to want of competition among the purchasers. It was believed by many that the Tariff law of last winter would give some additional protection to the manufacturers, so that all the mills would go into active operation, and that there would be a greater demand, and consequently that higher prices would be given for wool. Many of the wool-dealers in this city, acted on this belief, and have now large stocks of wool on hand which they purchased at shearing time on speculation.

We are informed by one of the appraisers in this port, who it is generally known is very accurate in his calculations, that the duties secured on Cloths at the minimum ports do not amount to so much under the present law as they did under the former one, by one and a half per cent. This arises, we are told, from the construction given to the law by the Secretary of the Treasury, which excludes the lists and headings from measurement, and abandons the principles which had hitherto been observed of adding 10 per cent to the invoice value, and reckoning duty on the charges.

The subject is one in which the wool growers have at least as deep an interest as the manufacturers, and it remains to be seen whether they will insist upon having the Bill of last Session so amended as to strike out the one dollar minimum, and thereby secure to them the benefits which were promised, and to which they are justly entitled.

Remarks by the Editor of the N. Y. Even. Post.—The above article from a paper which has always supported the manufacturing side of the question with great zeal and uniformity, makes good an observation frequently repeated in this paper, that the more you grant to the petitioners for an high tariff the more they will ask. By every new burden you put on the shoulders of the consumers for their benefit, you add to their number, and they besiege you with greater noise, a closer concert and a more restless importunity. Some people were so credulous as to believe that if the persons who clamoured for new duties on wool and woollens last winter could be gratified with the passing of the tariff they would be quiet. They little understood the nature of the "American System." Once embarked in it there is no stopping short of absolute and entire exclusion of imports, such a prohibition of intercourse with the rest of the world as semi-barbarous nations have hedged themselves round with, such as is resorted to by the absord jealousy of the Chinese empire, such as Spain adopted to keep her South American provinces in ignorance and degradation. The tariff of 1824 was made the pretext for imposing that of 1828, and now the tariff of 1828 is to be made the pretext for one still more exorbitant and excessive. The truth is that those who expect to make their fortunes by laws of this kind are never benefitted by them in the degree they expect. Such high expectations are raised, so much competition is produced, so much money is lost in speculation and experiment, that although the community at large are heavily taxed, very few gain any thing by it. The "American System" is a system of burdens to all, and of benefit to scarcely any. It is a system of wanton waste of the wealth and productive industry of the nation.

We hope that both the wool growers and woollen manufacturers will learn the proper lesson from their present situation. Let them see the folly and inefficacy of laws to make them rich. Laws for their protection may increase their numbers, perplex them with competition, and burden the rest of the community, and very little more than this can laws do, unless they name the individual to be enriched, and assign him a pension. How could the editor of the Courier, or any body else, expect that *all* the woollen mills in the neighbourhood of Boston "would go at once into active operation," when so many mills are building or have just been built all over the interior, each intended to supply its own neighbourhood—to say nothing of the cloths clandestinely introduced from abroad. The law of 1828 is a bad law, we admit it. Let us not amend it, but repeal it. Let us not impose any new burdens, but let us diminish the old, which fill the whole country with complaints. Instead of going on to make matters worse, let us strive to make them better, by unshackling our trade, and suffering industry to flow in its natural channels.

COFFEE.

From Dr. Thornton's *Botanical Lectures*:—"Now that I am speaking of berries, it may be useful to say a few words respecting Coffee: I would recommend every person to drink coffee at breakfast, for those persons who constantly use coffee can never be subject to putrid fevers; and in the east of Europe its cultivation became first an object of particular attention, from the discovery of its being the only certain remedy then known for the cure of the plague. Mocha coffee, which originally grew in Arabia-Felix, is unquestionably the finest, and possessed of the greatest perfume; but our own British Plantation coffee, if obtained wholesome and pure,—fresh roasted, and ground immediately before using, makes a most delicious beverage: and I must say, what I use myself, which I procure from Nicol & Co's., *Fenchurch-street*, possesses more of the real pungency and aromatic flavour of this valuable exotic in perfection, than I, from experimental trial have got elsewhere. Coffee has a great tendency to the cure and prevention of scorbutic humours, and I have known the paroxysms of asthmatic complaints considerably abated by drinking three or four dishes of coffee. A cup of coffee strengthens and exhilirates our mental faculties; and nothing can be more refreshing either to the studious or the laborious, than a dish of good coffee: this fact we have had practically and powerfully illustrated by Napoleon Bonaparte, whose buoyancy of mind and energies, intellectual and physical, were never surpassed by any man, who abstained from the use of wines and spirituous liquors, but drank coffee at all hours of the day, for the revival of his spirits and strengthening of his body."

Admiral Sir Isaac Coffin has introduced on the Devonshire coast a new branch of industry, which promises to furnish employment and food for thousands. It is the drying of pilchards for winter consumption, in the same way as herrings. The *Plymouth Journal* says the result has fully answered expectation, and that the pilchards dried by Sir Isaac are superior in flavour to any herrings now brought to market. The process of curing them is cheap and simple:—The pickle is made with one part sugar or molasses, and four parts of salt, with sal prunella in the proportion of six ounces to every fifteen pounds of sugar and salt together—sufficient water is added to make a pickle, in which a potato will float. The fish are left for a week in the pickle, and then smoked as herrings are.

THE FARMER.

Baltimore, Friday, November 21, 1828.

☞ In a letter from Mr. Prince, he states that a very valuable discovery of a method to avoid losing grapes by mildew has been made, not by himself; but that it will soon be communicated for publication in the American Farmer. It shall be most welcome when it comes. The remainder of his letter being altogether in the nature of an advertisement, has been placed in the part of our paper devoted to that purpose, to which the reader is referred.

☞ Bread-Stuffs.—There has been for some weeks an extraordinary fluctuation in the price of bread-stuffs, occasioned by the unsteadiness of the market abroad, the uncertainty of the extent to which the powers of Europe might be drawn into the vortex of war, and in no small degree by the spirit of speculation at home.

To give our individual opinion how long the present prices will remain, and whether, if they are changed, it will be for the better or the worse, would be to assume a responsibility that we need not incur; we shall be careful always to give the exact prices, and so much of the news from abroad as may appear to have a bearing on the value of the articles quoted: and having done that, we leave our intelligent readers to judge for themselves.—We should be sorry to misguide them, as we might do, by our own speculations, and we can enlighten them only by giving them facts on which they may always rely.

Too many of our friends, we are sorry to learn, had sold their crops before the rise in grain took place. This is especially the case on the Eastern Shore, because, as we suppose, the transportation to market is done entirely by others, in boats which lie at almost every man's door—whereas, the farmer, removed from tide waters, must occupy his teams in putting in his grain crops, and can only send them with his grain, or more generally with his flour, to market, after all his seeding is done.

To get late to market is not always, as now, to get to the best market. The best general rule, is to sell as soon as you can conveniently prepare for it; for although *sometimes* it may happen that by delay you will get a higher price, yet the reverse of that is as frequently true, and by selling as soon as you can get ready, you *make sure* of some important advantages. First, you avoid waste of crop, which may occur in a thousand ways, by mice, birds, fowls, "light-fingered gentry," &c. and the danger of entire destruction by fire, storm, &c.; and next, and most important, you pay your debts, stop interest, and keep a good name and a quiet pillow. Let the farmer, then, who takes time by the forelock, pushes his work and gets early to market, take comfort in the reflection that he has done his part, and leave the rest to chance. If his neighbour, who lags behind him, sometimes gets a better price, it is but the luck which chance often throws in the way of the slothful; lending some foundation to the proverb—"a fool for luck."

☞ On the political aspect of the latest news from Europe, we may adopt the observations of the New York Evening Post. For the items that are connected immediately with the value of bread stuffs and other agricultural products, the reader is referred to the letter taken from the New York Statesman.

(From the New York Evening Post, of Nov. 17.)

European News.

We have looked over the papers brought by the Sylvanus, Jenkins, on Saturday, more closely than our occupations then allowed us to do. We do not find that they contain any thing new from the seat of war, except the report that the Russians had had raised a siege and were retreating, a report which has not yet received the confirmation of official accounts.

A Turkish Bulletin is given, dated at Shumla on the 2d of September, relating to an action which took place on the 31st of August. Seven thousand horse under Alisch Pacha attacked a little camp at Jennibazar, four leagues from Shumla. The Russians were defeated, with the loss of 200 killed and twenty prisoners, and were obliged to seek shelter in the neighbouring woods. The Turks set fire to 100 provision wagons, and carried off a number of cavalry horses, and 200 oxen, which were distributed among the troops.

The small port of Bourges on the Black Sea, which was captured by the Russians was kept by them only two hours. The country people assembled from all parts assailed them furiously, drove in their out posts, and then embarked and abandoned the place. The accounts received by way of Constantinople, which are as late as the 12th of September, give a sad picture of the state of the Russian army. The Turks represent the army of the enemy as diminishing daily by the diseases of the climate, want of food and the impetuous sorties of the Turkish garrisons.

(From the N. Y. Statesman.)

Liverpool, Oct. 11. 1828.

Dear Sir.—The sales of Cotton from 27th ult. to the 3d inst. amounted to 12,570 bales, viz:—90 Sea Island at 13 a 14 1-2d; 10 Stained at 7 1-2; 4000 Upland at 5 3-4 a 7 1-8, with 20 at 7 1-2; 2,430 Orleans at 6 a 7 3-8, with 140 at 8 1-2; 2000 Alabama at 5 3-4 a 6 3-4; 2,460 Brazil at 6 7-8 a 8 1-8; 160 Demerara at 7 1-8 a 7 5 8; 20 Barbadoes at 12d; 40 West India at 6; 100 Carthagena at 4 1-2 a 4 5-8; 640 Egyptian at 7 1-2 a 8 1-2; 620 Surat a 3 3-4 a 4 3-4 per lb. The demand was steady and prices rather improving. The import during the week was 19,530 bales. Ashes were in request, and Pearl brought rather higher prices; 550 bls. new Montreal Pot sold at 30s; 80 new Pearl, 30 a 31 and 80 New York, brand 1827, 30s. 6d per cwt. Tar—600 bbls. common quality, brought 12s per barrel.; about 1800 barrels of fresh Turpentine brought 11s per cwt. from the quay. Quercitron Bark—about 60 hhds. Philadelphia sold at 12s a 13s, per cwt. Rice—150 tcs. Carolina brought 17s 6d for middling, and 19s for good quality. Tobacco—Good Leaf; suitable for the Irish market, was readily taken at some advance on former prices.

There has been a very active demand for Cotton this week, especially the last three days, and the sales of all descriptions from 4 to 10th inst. inclusive amount to 22,620 bales, viz:

170 Sea islands at 13 a 22d; 20 Stained at 7 a 9d; 9580 Upland at 5 7-8 a 7 3-8d; 3490 Orleans, at 6 1-4 a 10 a 9d; 4478. Alabama, at 5 3-4 a 7d; 3390 Brazil, at 7 1-4 a 8 1-4d; 220 West India, &c. at 6 1-4 a 9d, 470 Egyptian, at 7 a 8 1-2d; 500 Surat, at 3 3-4 a 4 3-4d. Common qualities of American, especially Upland have advanced 1-8 per lb., and the better qualities are saleable at the extreme prices of the week previous; yesterday, fair Orleans were in request at an improvement of 1-8 a 1-4 per lb. Speculators have taken upwards of 4000 bales American, and the market closed steadily. The import during the week is 3420 bales; and since the 1st of January the supply received into this port amounts to 527,740 bales, against 677,588 to same period last year; the decrease from the United States is 195,100 bales. In Manchester there continues to be a good demand for goods and yarn, and the consumption of Cotton is unabated.

Ashes.—The late brisk demand has subsided for the present, but prices are steady; 330 bbls. new Mont. Pot sold this week at 30s a 30s 6d. chiefly at 30s; and 13 bbl. Pearl, (old) at 29s 6d per cwt.

Tar.—The only sale is 180 bbls. at 12s per bbl. Turpentine—A parcel of old, consisting of 1126 bbls. has been sold, but the price has not transpired. There are no sales of Rice or Quercitron Bark to report this week. *Grain.*—There has been a very extensive business going forward during the week, chiefly on speculation, and prices of all descriptions have advanced materially—very little bonded wheat is offering, purchasers being unwilling to submit to the high prices asked, and holders are in expectation of its being shortly released at a low duty.—Indian Corn may be quoted at 40 a 42 per qr. and Flour in bond 33 a 38 per bbl.; a fresh arrival of the latter would probably bring somewhat more. The Tobacco market remains without alteration, with a limited business doing And we remain respectfully yours.

Cotton.—Upland 5 7-8 a 7d; Orleans 6 a 7 1-2d; Alabama 5 3-4 a 7d; Sea Island 12 1-2 a 18d; Stained 4 1-2 a 10d. Ashes—N. York Pot 30s; do Pearl 30 a 31s; Mont. Pot 29 a 30s; do Pearl 30 a 31s. Rice—in bond 15 a 19s; Flour in bond 33 a 38s; Indian Corn per qr. 40 a 42s; Turpentine 9 a 11s; Tar 10s 6d a 12s 6d; Quercitron Bark 11 a 13s, Beeswax 8*l.* a 13*l.*; Hides, salted, 5 1-4; Tobacco, Va. leaf, 2 a 4 1-2; Stemmed 2 3-4 a 5; Kentucky leaf, 2 a 3 1-2; Stemmed, 2 1-2 a 4 1-2.

News Expected.

The New-York papers of Tuesday evening announce the arrival below at that port of the Liverpool packet ship of the 16th October.

We have seen a letter from New-York, to which the following is postscript—"Rumor says the King of England is dead;" but adds, "it cannot be known."

There are also a great many reports of the price of flour in England—some highly favourable to an advance, and others discouraging to the hopes that have been entertained of a rise. Neither can be relied upon.

VALUABLE VINES FOR SALE.

Knowing that extensive Vineyards were most successively cultivated on the Rhine, I made it a point to form an acquaintance with one of the most respectable and intelligent proprietors, and some idea may be formed of the extent of the one I shall refer to, from his having under culture 200 acres of land, and employing 150 workmen. To this very successful cultivator I stated our difficulties in regard to the Vine, which had been heretofore introduced from localities too far South, and therefore unsuitable to support our severe winters, and the general variations of our climate, and requested of him to send me a selection of those kinds only which bore their winters wholly without protection and without injury, and such as were great bearers, and produced certain and regular crops; and which were also considered among the best for wine. The comprising these particular qualities naturally rendered the number of varieties selected comparatively small, and he sent me the following eight kinds, as possessing these desirable properties, viz:

Facun or Bourger,
Petit Rauschling,
Gros Rauschling,
Rothe Hintsche,
Rothliehtner,
Auvernas Blanc,
Auvernas Gris,
Auvernas Rouge Claire.

The three latter are the kinds used also in making Champagne Wine. I received of the above kinds 6,400 Vines, of which nearly the whole survived and flourished, and from the peculiar circumstances under which the selection was made, I consider them far better calculated to give success to our Vineyards than any others yet imported to our country.

WM. PRINCE,
Near Long Island, New York.

FRUIT TREES, &c.

The Subscribers have for sale at their Nursery near this city, an extensive assortment of well grown, thrifty, Grafted Fruit Trees, ready for delivery at their Store, at the shortest notice, consisting of Apple, Peach, Pear, Apricot, Cherry, Nectarine, Plum and other Fruit Trees, which they warrant to prove true according to catalogue. They will also furnish at short notice, *White Mulberry Trees*, from one to three years old, Grape Plants and Cuttings, and Ornamental Trees, together with about thirty thousand *Thorn Quicks* of two years' growth. They have an extensive assortment of young plants under way, to meet the annual demand which may be made, and R. S. is now devoting much of his time in extending and stocking their Nursery and Seed Garden, and hopes soon to be able to supply the public with most articles in the Horticultural line. Samples of the Trees may be seen, and priced catalogues received (gratis) at our Store, Pratt-st. wharf.

SINCLAIR & MOORE.

Balt. Nov. 15.

WANTS A SITUATION.

A person who understands the business of a *Vine-Dresser* in all its branches, together with the process of making the different kinds of wine, and putting them up. The advertiser is a German, and also understands the French language. Having a family, he would prefer remaining in this state, where he would undertake the care of a number of vineyards. Inquire at the office of the American Farmer.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 8.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 3.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $10.50 *a* 11.50—super. Howard-st. 8.00 *a* 9.00; city mills, 7.75 *a* 8.50; Susquehanna, 8.00 *a* 8.50—Corn Meal, bbl. 3.00—Grain, best red wheat, 1.75 *a* 1.90—best white wheat, 1.95 *a* 2.05—ord'y to good, 1.65 *a* 1.75—Corn, old, .60 *a* .62—new corn, .55 *a* .60—in ear, bbl. 2.00 *a* 2.50—Rye, bush. .60 *a* .65—Oats .33 *a* .32—Beans .75 *a* 1.25—Peas .45 *a* .55—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, .27—bbls. .28 *a* .29—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

Hay, per ton, 10 *a* 11 dolls.; Straw, do. 7 *a* 8 dolls.

Such has been the fluctuation of our grain market for some days past, and at the present time, it cannot be correctly stated. Tuesday last $9.00 was paid for flour out of the wagons; yesterday by some 8.00 and others 7.75, and to-day it is expected to be down to 7.00.

Sales of whiskey was made yesterday at 26 a 27cts. in the hhd.; and on Wednesday a sale of white wheat at 2.13; this day, sales of common red at 1 80. Good corn is in demand; produce from the Susquehanna is daily arriving.

Marketing—Apples, per bush. .50 *a* .75; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .25; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 2.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .50; Partridges, .8 each; Canvass-back Ducks, pair, 1.00 *a* 1.25; prime Beef on the hoof, 5.50 *a* 6.00.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

OF THE ART OF HORSEMANSHIP.

(*Continued from p. 282.*)

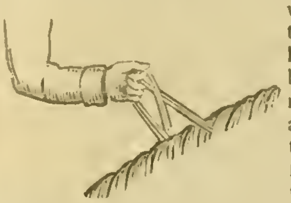
Horsemanship, as an art, is unquestionably of very ancient date, and it is curious how very different are the modes by which it is practised in different countries; but which differences are yet principally confined to the situation of the legs of the rider: for wherever the horse is used to carry the person, it is by the rider placing himself astride the animal. Horses were used in this way for centuries before any apparatus was used or applied to their bodies to spare fatigue to the rider; and we know that the first saddles were mere pads strapped round the body, but without the appendages of stirrups. In England, riding is systematically divided into two kinds, which are manege and jockey riding.

Manege riding, called also *riding the great horse*, in the strict application of the term, was formerly more practised than at present; and required a system of education for both horse and rider long and severe. Horses perfectly broke for the manege, were taught several paces and motions, as ambling, pacing, passaging, yerking, capriole, and cornetti. The practice of these artificial cadences, it is supposed, injures the natural pace of the horse; and this circumstance, united to a particular form of horse (defective for other purposes,) being required for the elasticity of these actions, has tended to bring manege riding, as formerly practised, into disrepute. Manege riding also taught the constant application of the seat of the body of the rider to the seat of the saddle, during all the motions of the horse; and as a severe education, and a particular form, had bestowed ease and elasticity to the rudeness of the manege horse, the inconveniences of this seat were not felt. But when another form of horse, capable of great speed over excellent roads, was in general use, this kind of riding was found hurtful to both horse and rider: fatiguing the one, and injuring the other.

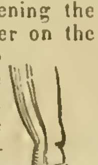
The *art of proper riding*, as practised among experienced horsemen, is derived from a knowledge of the judicious application of the aids of the bridle, as taught in our schools, and as practised in the army generally: and also from a proper application or placing the body on the horse. These we certainly owe to manege riding; and a knowledge of them is as essential to the safety of the rider, as it is to the grace of his appearance as a horseman. The proper art of riding embraces all that is taught in the best schools, or practised on the road; and is equally applicable to both. This is allowed to its fullest extent by those who have possessed themselves of the requisite information, and practise on the subject; but is denied by those who, wedded to field riding, contend that the perfection of horsemanship consists in a snaffle bridle and a jockey seat.

The *use of the curb bridle* is considered in the schools to be essential to good riding: by it the horse is not only restrained, but he is also aided and assisted. He is alternately thrown on his haunches, or forced on his forehand, by which changes fatigue is prevented to both. Great nicety, however, is required in the use of the curb; and without an inclination and ability to use it lightly and dexterously, a snaffle is the best and safest bridle. The curb is to be operated by a gentle turn of the wrist only; and the action of the hand in this respect should be as fine, and as pliable as the fishing rod and line. The force of the curb should in every instance be proportioned to the mouth of the horse.

The *best form of saddle* for general riding, is one in which the cantle is not so high as the military, nor so low as the racing saddle. The pommel should be no more raised than is necessary to keep the whole completely free from the withers. The stirrups should be substantial, not only to prevent breaking, but also that by their weight they may fall to the foot when accidentally slipped away; which is of more consequence than at first sight may appear. If they are of the spring kind, it is also desirable: but it is still more so, that the spring stirrup leather should be used, which prevents the danger arising from horses catching the leather in the projections of doors, gates, &c. Having saddled and bridled our horse, we will proceed to mount our rider.



If you would mount with ease and safety, says Hughes, stand rather before the stirrup than behind it; then, with the left hand, take the bridle short, and the mane together, help yourself into the stirrup, with your right, so that, in mounting, your toe do not touch the horse. Your foot being in the stirrup, raise yourself till you face the side of the horse, and look directly across the saddle; then, with your right hand, lay hold of the hinder part of the saddle, and, with your left, lift yourself into it. When mounted, let your position on the saddle be square, and the purchase of your bridle such as not to pull your shoulders: and let your body be in such an even posture as if you held a rein in each hand. In holding the bridle, grasp the reins with your hand, which should be held perpendicular with the reins passed, the lower within the hand, and the upper between the fore and next fingers. The reins are then brought over the fore finger, and firmly held by the thumb. It is often directed to place the little finger between the lower reins; the practice of this may be optional with the rider, and in a very fine hand is desirable. The bridle should be held at such a length as to enable you if your horse stumbles, to raise his head and support it with your arms; and by throwing your body backwards at the same time you frequently save a horse that would otherwise fall.



A *graceful and proper seat* on horseback is greatly dependent on a right disposition of the legs and thighs, which should hang nearly straight down, easily, and without force or constraint: all which is brought about from above; by placing the body flat and evenly on the saddle, and opening the knees, whereby the fork will come lower on the saddle. The thighs should be applied to the saddle and to the sides of the horse by their inner surfaces, so as to bring in the knees and toes; and although the line may be properly broken by some little irregularities, yet the foot, the knee, the hip, and shoulder, should deviate but little from one perpendicular line. The ball of the foot should rest within the stirrup, and should be even with the heel, or very slightly elevated above it. Avoid any stiffness in the legs, thighs, or body; all should be lax, but in a state to be able to embrace the horse, either for support, or as aids to him. The loins, particularly, should be lax and pliable, as a coachman's on his box, and for the same reasons: for by sitting thus loosely, the rough motions of both are broken. To depend on the embrace of the knees for support, is to lose the benefit of a true equipoise of body, and is rather to stick on a horse than to sit on one.

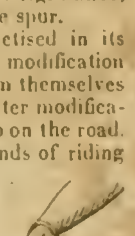
When you are troubled with a horse that is vicious, which stops short, or, by rising or kicking, endeavours to throw you off, you must not bend your body forward, as is commonly practised in such cases; because that motion throws the breech backward, and moves you from your fork, or twists and casts you out of your seat: but the right way to keep your seat, or to recover it when lost, is, to advance the lower part of your body, and to bend back your shoulders and upper part. In flying or standing leaps, a horseman's best security is the bending back of the body. The rising of the horse does not affect the rider's seat; he is chiefly to guard against the lash of the animal's hind legs, which is best done by inclining the body backward. But the usual method of fixing the knees in all cases of danger only serves, in great shocks, to assist the violence of the fall. To save yourself from being hurt, in these cases you must yield a little to the horse's motion; by which means you will recover your seat, if displaced, or keep it at such times as would dismount an unskilful horseman.

If your horse grows unruly, take the reins separately, one in each hand, put your arms forward, and hold him short, but do not pull hard with your arms low; for, by lowering his head, he has the more liberty to throw out his heels: but if you raise his head as high as you can, this will prevent him from rising before or behind; nor, while his head is in this position, can he make either of these motions. Is it not reasonable to imagine, that, if a horse is forced towards a carriage which he has started at, he will think he is obliged to attack or run against it? Can it be imagined that the rider's spurring him on, with his face directly to it, he should understand as a sign to pass it? These rational queries are submitted to the serious consideration of such as are fond of always obliging their horses to touch those objects at which they are, or affect to be, frightened.

Indifferent horsemen, Lawrence observes, should never venture on horseback without spurs. Those who reflect upon the predicament of being placed between a deep ditch and a carriage, at which their horse shies, will see the necessity of this precaution.

Previous to mounting, every person will find his account in examining the state of both horse and furniture with his own eyes and hands; for, however good and careful his groom may generally be, it is a maxim, that too much ought not to be expected from the head of him who labours with his hands. Besides, all such sedulously avoid trouble, particularly in nice matters. For example, see that your curb is right, that your reins are not twisted, that your girths, one over the other, still bear exactly alike; that the pad be not wrinkled up; but, above all, that your saddle lies exactly level upon the horse's back.

On getting off the horse's back, hold the bridle and mane in the same manner as when you mounted, hold the pommel of the saddle with your right hand; to raise yourself, bring your right leg over the horse's back, let your right hand hold the hind part of the saddle, and stand a moment on your stirrup, just as when you mounted. But beware that, in dismounting, you bend not your right knee, lest the horse should be touched by the spur.



The jockey mode of riding is practised in its fullest extent in racing. With some modification it is also in use by many who esteem themselves excellent fox-hunters. With still greater modification it is by its advocates practised also on the road. English post-boys unite these two kinds of riding in a manner at once easy to themselves and horses. True jockey riding consists in the use of a snaffle bridle, which is held firmly; and, as an advocate for it expresses himself, to enable the rider to give his horse the proper pulls. To this end, the same writer recommends a firm seat, upright, and as you would sit in a chair, with the knees nearly as much bent, and turned inward; the toes somewhat out and upward; the leg falling nearly straight, and the foot home in the stirrup; elbows close to the sides; hands rather above the horse's withers, or pommel of the saddle; and the view directed between his ears. The same writer further advocates the jockey mode, by commenting on the decline of riding-house forms, and the universal preference given to expedition, which, as he says, fully confirm the superior use and propriety of a jockey-seat. Indeed, our riding-schools are now, he continues, considerably reformed from the stiffness of ancient practice in all respects. It was the practice formerly in the schools, and indeed pretty generally upon the road, to ride with the tip of the toe only in the stirrup; as if it were of more consequence to prepare for falling with safety, than to endeavour to sit securely. Those who preserve a partiality for this venerable custom, we would advise to suspend a final judgment, until they have made a few more essays upon a huge cock-tail half-bred, of that kind which "cannot go, and yet won't stand still," and will dart from one side of the road to the other, as if he really desired to get rid of his burden. Nor is the ball of the foot a proper rest; chiefly because inconvenient to that erect, or rather almost kneeling, posture, which is required in speedy riding. The riding-house seat is preserved by the balance or equipoise of the body solely; that recommended here by the firm hold of the knee, which is obviously strengthened by the opposite directions of the knee and toe, the one in, the other outward.

MASSACHUSETTS AGRICULTURAL SOCIETY.

Sketch of the rise and progress of the Massachusetts Agricultural Society, extracted from an old letter to the Editor of the American Farmer.

I will now endeavor to solve your enigma relating to the funds of our agricultural society. The brief history of their rise and progress is as follows:

Soon after the incorporation, (1792,) there was subscribed as a fund, $3984, by nineteen gentlemen, viz: 14 in Boston, 1 in Waltham, (Governor Gore, two United States' Bank shares, equal to $1000,) 2 in Cambridge, 1 in Brighton, and 1 in London, (the great philanthropist, the late Dr. J. C. Lettsom, who gave 10 guineas.) The trustees, at the commencement of their labours, offered as liberal premiums as their funds would permit, but as they had to "raise spirits from the vasty" *soil*, so few came to claim them, that an annual assessment of one dollar, very partially collected, (from the circumstance that the members were mostly elected without their consent or solicitation, and never personally called upon,) sufficed, it is presumed, to pay them; and also the trifling items of expense attending the institution. So that the income accumulated to the permanent fund, till the establishment of cattle shows in 1816, which now amounts to $14,000, and may be attributed, in a great measure, to the admirable management of the three several treasurers, by a most judicious exchange of stocks, when any advantage was likely to accrue, and a quarterly investment of interest.

In 1793 or '4, the trustees published a pamphlet, which they distributed to all the members of the legislature, who passed a resolve to pay for the printing. This established a precedent for all subsequent publications; and since the commencement of the regular *new series*, which began with the 3d volume, I think in 1813, the state has paid $400 per annum for printing the journal, consisting of two numbers of 1000 copies each, which were distributed to every member of the three branches, at the January and June sessions. Thus you see, that all the publications of the trustees, as they came out, have been disseminated into every town and district that was represented in the legislature of the state, amounting, before the separation of Maine, to more than 600. Since which, a sufficient surplus of copies have enabled the trustees to give one to every life member.

A sale of the Journal was authorized for the sole purpose of accommodating those who were not members, and persons out of the state, but has been very limited, not averaging more than $30 per annum. It has had the effect, however, to elicit life subscriptions.

The amount of premiums since the establishment of cattle shows, have averaged about $1200 per annum.

In 1819, the legislature passed an act to pay $200 per annum, (to be paid out in premiums,) to any agricultural society formed, or that might be formed, that would raise $1000 as a permanent fund by private subscription—and *pro rata* for any larger sum, but not to exceed $600. As our funds embraced the *maximum*, we have since received $600. The act was to continue five years; and last May was extended five years.

The life subscription of five dollars, and premiums not competed for, may have added something to the permanent fund, but it cannot be of much amount, as the expenses of the cattle show and preparatory arrangements, have generally made a deep cut upon the disposable funds. I trust you are aware that *John Bull* can never be made to work well without a dinner (and a good one it must be,) in prospect. And I am led to believe that his descendants, however remote, will find it very difficult to eradicate this propensity, so *innate* in their progenitor, and which may be considered as hereditary. In order to help out the expenses of the cattle show, the trustees have put an advance of fifty cents on a ticket more than they pay. This, hitherto, has a little more than made up the sum that would have been *minus* on the ticket account, as a number of complimentary tickets are given out to the governor and council, judges of courts, selectmen of the town, clergy, &c., besides to members of the several committees who are not trustees: but the trustees buy their tickets *at full price*, and have never touched a cent for any of their expenses since the formation of the society. Tickets have been as high as $2.50, but were reduced at the last show to $1.50. The trustees, and members in the neighbourhood, furnishing the *dessert*, and drinking the *society's wine*, being a donation from Mr. Dabney, of Fayal, who has for four years past sent, expressly for the society's annual dinner, a quarter cask of the best wine he can select in the island of *Pico*. A stock was permitted to accumulate, and the oldest was pronounced, at the last dinner, to be equal to the best four dollar Madeira to be had of the wine sellers; and from his declaration, the society may expect a continuance of the donation so long as he is able to select it. But my paper admonishes me that I must stop eating and drinking, and say—that

I am ever yours. ***.

ON THE CULTURE OF MULES.

By an article in the Commercial Chronicle of the 13th inst. furnished by "A FARMER," the attention of the public has been very appropriately invited to this important subject. The article alluded to is as follows:

(For the Commercial Chronicle.)

GENTLEMEN—On reading the reports of the several committees appointed to award the premiums at the late Cattle Show near Baltimore, I observe that the Committee on ASSES and MULES express a regret that neither Jennies nor Mules were exhibited for premiums. I have hastily thrown together my ideas of the valuable properties of the Mule for Agricultural employment. If you think them worthy an insertion in your useful and widely circulating paper, you will please to insert them, and oblige

A FARMER.

THE MULE,

When compared with the horse for the general purposes of agriculture (in Maryland) has certainly many advantages. FIRST, they are much longer lived, I think I am justified in saying double, when put to hard service and exposed. The late Colonel John E. Howard had a pair that worked thirty years, at the expiration of which time he sold them to a carter in Baltimore, then in good health, and they performed well for many years after. There are several Mules now in Baltimore county, that were twenty-five years old last spring, some on the farm of George Harryman, Esq. and some are on the farm of Micajah Merryman, Esq.—they are now in good order, and perform well—there are many that are twenty years old, and have been at hard work eighteen years; two of that age were sold at public sale but a few weeks ago at fifty-three dollars each; besides these, there are many that have been at hard work for from twelve to fifteen years, that would now sell for one hundred dollars each. SECONDLY, the great saving of food, which on a fair calculation, I consider to be one third, or in other words, six ears of corn is as great a feed for a mule, as eight for a horse; in confirmation of this, I have the opinion of Mr. Green, late manager at Hampton, and many others in Baltimore county, who have long used the mule in agricultural pursuits. Upon this principle, nine pounds of chopped rye for a mule is equal to twelve pounds for a horse. Agreeably to this conclusion I will attempt to show what is saved in the article of food alone. If chopped rye be used the saving will be three pounds per day, and in a year 1095 lbs. calculating chopped rye at one dollar per hundred, the saving in a year will be $10 95

Hay in proportion at five dollars per ton, 2 43

Making a saving in one year, of $13 38

and in ten years $133 80. Thus it appears that in ten years, which may with propriety be considered far short of the average time of a mule's service, it will save its first cost in the article of food alone, and be a good mule then. And furthermore, they are not liable to so many diseases which frequently afflict horses, viz. the *colt's ailment*, the *glanders*, *heaves*, *yellow water*, and *cholic*, and they seldom are afflicted with the spavins, ringbone or botts, and they will not founder. Admitting what I have stated to be correct, there can be no doubt of the superior advantage to be derived from the employment of the mule in agricultural pursuits instead of the horse. And the question naturally arises, how are we to procure a stock of good mules. I will give my opinion as brief as possible; do away the prejudice which prevails in Maryland, and in almost every place where mules have not been bred, "that a mare will bring but one mule, and that after having had a mule she will never have a colt;" however absurd this may appear to gentlemen of general information, it is nevertheless cherished by many persons who have not made the experiment, and is the principal reason why those who have kept Jacks in Maryland have not found it profitable. As nothing but actual experiment will overcome this prejudice, I would suggest the propriety of offering a premium of two dollars for every mule two years old raised in Maryland, and ten dollars for the best two years old mule, and ten dollars for the Jack which should sire the most foals in a season, the number to exceed twenty. Should this method be adopted and continued three years, I think much good would result from it, and after that I am confident that the farmers would find a sufficient inducement to raise mules instead of horses, and I am confident that from the large mares of Maryland and Pennsylvania, a larger and better stock of mules can be produced than was ever raised in France or Spain.

—

We would farther suggest inasmuch as animal labour, must be put in requisition, as a means of conveyance upon the numerous Rail Roads and Canals already projected, and in rapid progress towards their completion, that any facts illustrative of the power and efficiency of Mules compared with those of Horses, are deserving of the particular attention not only of American Farmers, but of all who are concerned in works of internal improvement

In reference to this subject we propose the following queries, and should be glad to receive any communication in reply to them.

The duration of a Mule's life compared with that of a Horse?

The strength of the former conpared with that of the latter?

The speed with which a labouring Mule can move, compared with that of a Hose?

The speed with which a Mule can travel, and perform the greatest amount of labour?

Whether a Horse or Mule is most serviceable, when required to move at the following rates of speed, viz. 2, 3, 4, 5, and 6 miles pr hour respectively?

Any facts in regard to the most conomical mode of subsisting Horses and Mules, a d the comparative cost in both cases?

The diseases to which Mules areliable?

The comparatire value of Hores and Mules? and the actual cost of rearing them'

On the System of Breeding In-and-In,

By a Farmer of much experience and much oservation in Massachusetts.

Dear Sir, *Oct. 28, 328.*

You ask my observations on the system of breeding in-and-in, and so far as I have had an opportnity of judging, I abominate it; am glad you begn to question the high authority from which that detrine sprang, and has been disseminated to te great injury of the agricultural interest, as I fuy believe. Sometimes it is thought to extend to te human race; and an old farmer, with strong natual powers, but without education or cultivation, wth whom I was conversing some twenty-five years sire, and endeavouring to persuade into a belief ofhe breeding in-and-in system, (for I was once a full nd firm believer,) observed to me that I might talkill doomsday, he could not and would not believin it; I might say, what he had often heard saito farmers, that the fault was in *them;* that they ner selected their best animals for breeding, but ld them to the butcher, and bred from the most ierior on both sides; but it is not true as it respts every farmer; and I tell you, Mr. P., replied thermer, that think what you will of it, this *in-anin business*, as you call it, extends to the human re; and show me, if you can, the progeny of our usins that is equal to the parents. If you look th half an eye, you perceive a falling off; to be re the progeny of such stock may have great adntages of education, &c., but in the main youill find they are not equal to their parents; and fow it up, and you would find the progeny would becne ideots. Your confounded breeding in-and-in incestuous from beginning to end. I tried to lgh him out of his mistake and folly, as I then suppsed it; but, on my conscience, if the old man hadot quitted this sublunary state, I would make a business to see him, and acknowledge my misle. Now, Mr. Skinner, what think you of this? Lk at the Dalmatian coach dogs; following the sym with them, and the progeny is deaf, blear-ed, and defective in all the essentials. I think)u must have evidence of this both ocular and ticular, for I have known their voices so affected that they were unable to bark. Thus much for Mr. Bakewell and others. I regret very much the samples of my Merinoes taken yearly, have gone into Vermont, and the westerly part of this state, when I have flocks of five or six hundred Merinoes latterly crossed with imported Saxony bucks; was in hopes to have received them to forward you, but fear they are lost. I am very sorry, for I took them for the express purpose of ascertaining if the wool deteriorated in our climate, and should have felt some pride, and certainly great pleasure in furnishing the evidence you want for our country's friend; but I am fully satisfied that the wool of the Merinoes imported from Portugal, so far from deteriorating, has improved in this country. With high feeding, the wool is increased both in quantity and length, but the filament coarser. My sheep, since they have been in the country and fed with grass and hay only, have improved twenty per cent. in the fineness of the wool, but have lessened in quantity. The shepherds of Northampton told me it had improved fifteen per cent., taking quantity with quality, for the manufacture of fine cloths. You speak of samples of wool from sheep brought to our cattle show. I usually send a few for exhibition, only to prevent premiums going to sheep that are ordinary. But we wool-growers think the month of October very unfavourable for taking samples of wool; it is the month in which the wool appears to great disadvantage, short, blunt, and the filament appears coarse and contracted. It is rather unfavourable to produce sheep at our cattle shows, at that time, as a person not acquainted would be led to think they deteriorated. I kept in a book (from the first Saxony mania,) the samples of wool at the different sales, with some samples of Merino fleeces, and the prices at which the Saxony sheep sold, with memoranda of sheep, &c. I send book and contents; It may amuse you; if it will not answer any purpose, for giving the information wanted, you will please to return it; I think it cannot be useful, except to show you the mania for Saxonies in New England.

(From the New Eogland Farmer.)

Gathering and Preserving Potatoes.

With regard to the time in which potatoes should be gathered, we find some difference of opinion among practical farmers. It is, however, acknowledged by all, that when intended for consumption and not for seed, they should not be gathered till they are ripe. The ripeness of the potato may be perceived by the appearance of the tops, which will begin to decay as soon as the roots have attained to maturity. After that period, we are told by some cultivators, it is important that the potatoes should be gathered and housed as soon as convenient, or immediately after the tops are decayed, either by ripeness or frost. Others say they will keep best in their native beds until the ground is frozen. But, at any rate, it is best not to defer digging till very late, lest cold weather should destroy or lock them in the ground till spring. The old fashioned mode of harvesting potatoes, was to dry them in the sun as you would grass for hay. Rees' Cyclopedia says, "as soon as potatoes are gathered they should be *allowed to remain some days to dry before they are stored.*" This we believe to be wrong, for in our climate, an exposure of two or three days to a cloudless sun, in September or October, would cause potatoes to turn green, to taste strong and bitter, and become in some degree poisonous. It is now said by practical farmers, that the less the roots are exposed to sun or air, after being taken from the ground the better, and that it is advisable to permit some part of the soil in which they have grown to adhere to and mix with them, when they are deposited in their winter quarters. It may be best, however, not to dig and house potatoes *immediately* after a "*soaking*" rain, but to let them remain a few days in the hills, to get rid of their superfluous moisture, which will in due time, say some philosophers, be expelled by the vital energies of the roots, unless the ground is very wet, which might cause them to rot.

Mr. Buel, of Albany, who is a practical as well as a scientific cultivator, says, "it were better that the sun never should shine upon potatoes—that they should be housed with all the dirt that adheres to them—that it is beneficial to add more dirt in the bin or cask, to exclude external air as much as possible; and that their surface should be kept moist, and the atmosphere, which surrounds them as little above the freezing point as possible."

The Hon. O. Fiske, in an address to the Worcester Agricultural Society, in speaking of the potato, observes that "nature has not accomplished its maturation at the period in which the vines decay, and the farmer believes it to be ripe. It seems probable that the earth by some unknown process, perfects its qualities after it has attained its growth. That potatoes, which have remained the whole season in the earth, are more farinaceous and pleasant, has been ascertained. A farmer in this town, who was in the practice of planting a large quantity, took his family supply from a spacious field, early in autumn. As the residue was intended for his stock, he deferred harvesting them till a late and more convenient period. During their consumption, his table, by mistake, was furnished with some which had been destined for the barn. The quality was so obviously superior, as to lead to an investigation of the cause. From that time the two parcels received an exchange of destination. Another fact illustrative of this position was stated to me by an eminent farmer in the vicinity of Boston. A distinguished agriculturist, from Scotland, who had dined at the best tables in the city and its neighbourhood, remarked, at the hospitable board of my informant, that he had not seen in this country, what, in Scotland would be considered a good potato. He imputed their difference to the different mode of cultivation. There they plant early and dig late."

The most expeditious way of gathering a potato crop, is, first to run furrows on each side of the rows, and then a deep one in the middle, which turns up most of the roots to the surface. In this way, however, we should apprehend some waste, and should not recommend it, except where potatoes are plenty and labour scarce. A hoe with prongs, such as is sold at J. R. Newell's establishment, 52 North Market-street, Boston, we believe to be the best implement for digging potatoes.

LETTER TO C. F. MERCER, Esq.

To the Editor of the American Farmer.

"I love to honour the man who can forget his own interests when they come in competition with those of his country."

To C. F. Mercer, Esq. *Nov. 6th*, 1828.

I address this letter to you, because I am of opinion that for a number of years you have been exerting yourself to the utmost of your powers to benefit your country, and also the whole human family.

Your exertions in favour of internal improvement deserve the gratitude of your country, but I cannot help wishing that the views of yourself and coadjutors were extended to other objects, in addition to those of roads and canals, as a wide field for improvement presents itself, on viewing all the interior concerns of our country, where shall we look around us without observing a sad want of our *united* exertions to benefit each other. Persons like you, sir, who have visited Europe, cannot avoid making comparisons much to the disadvantage of Virginia. If we look at our dealings between man and man, we shall find that for want of a *good moral* education, there is a lamentable want of *honourable* conduct in most of our dealings, and that we have nearly forgot the good old maxims *once* taught by our fathers, of doing unto others, as we would they should do unto us.

> "Teach me to feel another's wo,
> To hide the fault I see;
> That mercy I to others show
> That mercy show to me."

Then let us turn to our agricultural concerns, and it will appear really distressing to observe the total want of institutions to enable farmers to exchange their property amongst themselves. If we want to buy or sell a horse, cow, pig, or sheep, or any kind of grain for seed or feed, we must take to our saddle horse, and frequently ride we scarcely know where, for days together, before we can accomplish our wishes, and generally get but badly suited at last. Indeed the want of suitable markets amongst us, is perhaps the principal cause of our being nearly inundated with lawyers, sheriff's officers, constables and the like, and also one great cause of crimes amongst us; for if a person has occasion to raise a sum of money, though he may have plenty of farming stock to dispose of, he has but a very poor chance to meet with a customer, no markets being instituted, where buyers and sellers may meet, or dealers attend at, to take off stock to where it may be more in demand—of course a man's creditors get angry, and lawyers, sheriff's officers and constables are started, and some part of a farmer's property is levied on, which *he does not wish to sell*, and disposed of by these officers at a price generally so low, that when all these legal officers are satisfied, not more perhaps than one half of the proceeds of the sale ever finds its way to the creditor, and the farmer has lost that part of his stock, by which he hoped to sustain himself in business, and is still incumbered with that part of it he could spare, and finds himself a ruined man, and betakes himself to trick and fraud to support himself and family. Bankers and merchants have their exchanges and auction marts, and why should not farmers have similar institutions to which they may resort, to sell or exchange their property on the best terms.

If proper folds were provided at all the Court Houses in Virginia, to hold any live stock that may be brought there for sale, and a notice given that a regular market would be held there at every Court, for the sale of any agricultural stock or produce that might be brought there, *free of any charge for the use of the folds*, there cannot be a doubt but dealers and other buyers would regularly attend these markets, and exchanges effected, much to the advantage of all parties.

The state of our circulating medium also requires the most serious and deliberate attention. Here I well know I am treading on hallowed ground, but do not let us be too hasty or obstinate on this matter, as it is a question of some nicety, whether the prices of commodities regulate the quantity of our circulating medium, or the quantity of our circulating medium regulates the prices of our commodities. All civilized nations must and will have a circulating medium, to assist buyers and sellers in exchanging their commodities. Men will not now-a-day, confine their dealings, like barbarians, to barter, and gold and silver are too costly a money for young states; besides, strictly speaking, these metals are equally as much articles of commerce as iron and lead. Paper money, therefore, founded on, and representing *property*, and not resting entirely on *credit*, as too much of our paper money does in the present day, is the proper circulation for Virginia, and perhaps all other states. Property is always valuable, but *credit* is as light as air, and as volatile as the wind, and cannot withstand a thunder storm.

Virginia has three kinds of money in circulation, the precious metals, bank paper, and the private paper of individuals, and as the one kind is diminished, some other kind will increase. Now if you diminish bank paper, gold and silver certainly do not increase, but only the paper of individuals, which latter is, in general, only the representative of *credit*, and therefore bad, and is now our principal circulating money, and bad enough it is.

Now if we had an increase of good bank paper, this individual trash would scarcely circulate at all, and more business would be done for bank paper, and less credit would be given; and let it never be forgotten, that *credit* is the grand source of ruin to individuals, and also to states. No man is independent who is in debt.

ALPHA.

HORTICULTURE.

GRAPES.

J. S. Skinner, Esq. *Alabama, Sept.* 9, 1828.

Sir,—In your truly valuable paper of April 25, 1828, a communication from W. Elderton Allen, Esq. to Dr. Samuel Mitchell, appeared. This communication was read, sir, with strong interest by those who are anxiously engaged in the cultivation of the vine; and the reading of it involuntarily produced in every person of taste or science, if possible, a still greater anxiety to see the balance Mr. Allen was good enough to promise.

I have no hesitation, sir. in saying that every thing Mr. Allen *knows* on the subject, ought to be *known* to the country; and I am persuaded every one will agree with me who has read the first part of the communication, that every thing from Mr. Allen on the subject, will be attended with the *highest degree of public usefulness.*

Permit me, sir, to recommend, *from experience*, Mr. Prince's last work on Horticulture to your readers. It most happily combines an uncommon mass of practical knowledge, with an happy brevity, and from its *low price*, may, with the exercise of the most rigid economy, be found in every man's hand, where it ought to be. On the score of *information* alone, every person who really wants to possess knowledge, which will enable him to pass among common well informed minds, it will be found truly valuable.

In No. 27 of vol. 9, mention is made of an extraordinary producing grape, to be seen at St. Mary's College. Will some of your valuable correspondents say what grape it is, and how *trained* and *pruned, &c?*

A Subscriber.

P. S. How is the *Sicily Sumach* propagated?

Will Mr. Joab Haines, of Dayton, Ohio, favour the cultivators of the vine with *his mode* of *training* and *pruning*, also the mode in which the *native grape* is managed in Ohio?

The same request is made of Mr. Josiah Lockhart, who cultivates the grape in Frederick county, Va., as to the grapes he cultivates.

AMERICAN GRAPES.

About two years ago, a gentleman of the name of Deininger, (then of this country,) discovered on an island in the Susquehannah river, near the mouth of Conestogo, some bunches of, what he considered as very fine grapes. Some of these bunches he brought to this city, and after examination they were pronounced by all the gentlemen who had a knowledge of this kind of fruit, to be grapes of a very superior quality to any heretofore discovered in our country. This season Mr. Deininger brought several bunches of these grapes to this city, some of which weighed about two pounds. They are of a purple colour, grow very close together, the stone or kernel is very small, the skin thin and the juice of a most delicious taste, and are pronounced by judges to be equal, if not superior to any of the foreign kind introduced into our country, and being indigenous, have nothing to fear from our climate.

Mr. Deininger, who has now removed to York county, has left a few roots of his grape (now two years old,) with Mr. Henry Keffer, of this city, where they can be obtained by the lovers of this kind of fruit, price 50 cents each. [*Lancaster Jour.*

INTERNAL IMPROVEMENT.

Mr. Skinner, *Sandy Spring, Nov.* 13, 1828.

The national legislature being on the eve of again meeting, I hope you will feel inclined to give the following comparative estimates a place in the Farmer. There are views of our internal policy, arising from physical as well as moral causes, which cannot be too often pointed out to those, to whom the direction of our affairs is confided.

Amongst those who really advocate internal improvement, there is a radical difference of opinion respecting the two modes: canals and rail-roads. But before drawing (which I intend to do,) a comparison between the modes in question, a brief statistical survey will be necessary.

The United States, or that part of its immense domain, which is already parcelled into states and territories, is subdivided by nature into four great commercial sections, which, in order to preserve perspicuity, may be named relatively—Northern, Central. South-eastern, and South-western. In arranging the outlines of these sections, I have taken the artificial boundaries of states, in preference to more natural, and perhaps more precise limits, afforded by rivers and mountains; as the former method enables us to make a much more accurate comparison of area, and of distributive population. New Jersey is the only state I have divided, and the reasons for such a distribution, are obvious. Thus discriminated, the following tables exhibit a view of each, with their respective area, and population according to the census of 1820.

No. 1,—Northern Section.

	Sq. Miles.	Population 1820.
onnecticut,	5050	275,248
aine,	32,190	297,839
assachusetts,	7,250	521,725
ninsular Michigan,	34,000	10,000
ew Hampshire,	8030	244,155
ew Jersey—½,	3935	138,787
ew York,	46,000	1,372,812
hode Island,	1580	83,059
rmont,	8278	235,764
	146,313	3,179,389

No. 2.—Middle Section.

	Sq. Miles.	Population 1820.
lumbia, District of	100	33,039
laware,	2,120	72,249
ntucky,	37,680	564,317
aryland,	10,000	407,350
ew Jersey—½,	3,935	138,787
io,	40,000	581,434
nnsylvania,	47,000	1,049,458
rginia,	66,000	1,065,304
nois,	58,900	55,211
diana,	34,000	147,178
ssouri,	63,000	66,586
	362,735	4,256,456

No. 3.—South-eastern Section.

	Sq. Miles.	Population 1820.
rolinas, N. & South	83,270	1,141,687
orida,	54,000	10,000
orgia,	61,000	340,989
	198,270	1,492,676

No. 4.—*South-western Section.*

	Sq. Miles.	Population 1820.
Alabama,	51,770	143,000
Arkansas territory,	121,340	14,273
Looisiana,	48,220	153,407
Mississippi,	51,000	75,448
Tennessee,	43,265	422,813
	315,595	865,941

SUMMARY.

Sections.	Area in Sq. Miles.	Agreg. Popu.	Popu. Sq. M.
Northern,	146,318	3,179,389	21½
Middle,	362,735	4,256,456	12 6-10
South eastern,	198,270	1,492,676	8
South western,	315,595	865,941	4
	1,022,913	9,794,162	9½

A review of this summary, opens to the mind a most interesting subject of reflection. We see that on the northern section, where the population is most dense, that still the country is only commencing to be peopled; and that the aggregate population becomes less and less dense, advancing from the north-east towards the south-west extremity of the United States.

In the preceding estimates, I have rejected any notice of the illimitable regions drained by the higher branches of Missouri, as I am inclined to think that for the ensuing half century, the population will rather become more compact on the already inhabited parts, than spread with unabating rapidity westward. As far as settlements have been formed, migration has been facilitated by down-stream navigation, with but partial exception; but westward, beyond Arkansas, Missouri, and Michigan, strong river currents are to be encountered. Again, to the preceding cause of arresting an extension of emigration, may be added a total change of soil, advancing up the confluents of the Missouri. The fertile soil and thickly wooded region of the Ohio valley and lower Missouri, is gradually succeeded by vast open plains, which spread and present an appalling waste from the state of Missouri, to the sources of Arkansas, Kansas, Platte, and those of Missouri river itself.

Scattered settlements will, no doubt, within less than fifty years from this time, reach the vallies of the Chippewayan, and even extend to the shores of the Pacific ocean. But it must be on the productive tracts drained by the confluents of Ohio, those of the Mississippi proper, and upon other already inhabited sections of the United States, that the increasing mass of population will—must annually become more dense.

Confining our review, therefore, to the prescribed limits, another chain of reflection presents itself. We behold along the Atlantic ocean, and extending inland to the Appalachian system of mountains, a long narrow slope, comprising an area of 242,900 square miles, leaving in the great Central Valley 780,000 square miles. If we turn to a map of the United States, and compare it with the enclosed tables, the very great inequality of distributive population will appear. The actual population of the whole United States is now about thirteen millions; and, without pretending to very great accuracy, we may allow to the central basin one-third of the whole, or 4,333,000, very nearly.

The existing density of population is, in a striking manner, inverse to extent of surface; and the knowledge of that fact ought to admonish us to prepare for a change of relative physical force.

The mean density of the existing population of the Atlantic slope is between 36 and 40 to the square mile, but how very unequal are the extremes of that slope. North-east from the Potomac, the people, in great part free whites, exceed 50 to the square mile; whilst south-west from the Potomac to Florida Point, the distributive population cannot amount to 15 to the square mile; nor do the free whites very greatly exceed in numbers the coloured caste. In the central basin, the distributive population amounts to about 5½ to the square, but as will soon be seen, is most rapidly on the increase, as the surplus of the most dense section falls naturally into an adjacent void, where *man* is valuable and *land* cheap.

The subjoined abstract from the second edition of Darby's Geographical Dictionary, and also from his View of the United States, recently published, will serve, as far as the elements are correct, to show the decennial increment of general population in the United States to 1875:

1830,	14,043,064	1871,	48,789,600
1840,	19,335,810	1872,	50,253,288
1850,	26,168,079	1873,	51,762,886
1860,	35,167,708	1874,	53,315,772
1870,	47,368,544	1875,	54,915,245

The following table is founded on a far too moderate increase of 5 per cent. per annum, and excludes western New York, Pennsylvania, and Virginia, consequently gives the aggregate of the central basin too low:

1830,	3,646,495	1871,	26,902,834
1840,	5,939,715	1872,	28,247,975
1850,	9,654,145	1873,	29,660,373
1860,	15,729,533	1874,	31,143,391
1870,	25,621,747	1875,	32,700,560

To many, the results in these tables will appear as absolute extravagance; but it is the disregard of such mathematical reasoning applied to statistics, which marks the mere politician. The man who deserves the name of a statesman, will extend his regard to the future, as well as to the present; and never were the qualities of real statesmen more in requisition in the United States than at the existing epoch. The centre of power is in motion, and no human force can arrest its western progress; therefore now is the moment when foresight is demanded to conform our legislation to the new order of things.

In less than another half century, in 1875, unless prevented by unforeseen causes, the U. States, on 1 million of square miles, will contain 55,000,000 of inhabitants; and then, of the entire mass, 32,000,000 or nearly six-tenths, will be in the central basin. In 1875, the Atlantic slope will, it is probable, have a distributive population of about 115 to the square mile, and the central basin only about 40 on an equal surface; and will, at that epoch, still leave the facilities of farther increase enormously greater on the central basin than on the Atlantic slope. Will it be too much to say, that for the ensuing century, the central basin of the United States will have a very rapid increase of population? I am inclined to believe that such an estimate of the future is fully supported by the data already afforded by the history of the United States. What is then due to the men who exert their energy to open permanent lines of intercommunication from the Atlantic border to that vast interior, the future residence of countless millions?

WM. DARBY.

LADIES' DEPARTMENT.

FEMALE INSTRUCTION.

We have considered History as a picture of human contention by no means adapted to female instruction. War, its causes and its effects, are it is true, the far most abundant elements of history; can it therefore excite surprise that ladies should avoid a sombre detail, not always even given with the charm of good writing?

These remarks were excited by the perusal of a small duodecimo volume of only 222 pages, published by Plaskitt & Co. of Baltimore, under the title of "Lectures on the Discovery of America, and Colonization of North America by the English." This little volume comprises a series of eight Lectures, and with the truth of history possesses the features of an epic novel. The mind is led forward to a review of the predisposing causes, and the most sublime consequences of the greatest of modern revolutions.

The views are rapid though bold, the characters are only drawn in outline, but those outlines have strength, and convey their impressions to the mind. The sketches of those characters who in a long series of ages contributed to meliorate the condition of mankind, and not to enslave nations, are here brought to view with much of dramatic effect. Henry of Viseo, Vasco de Gama, Columbus, Isabella, Queen of Castile and Leon, John Smith and Pocahontas, are most striking examples. As a book for the toilet of a lady, we cannot avoid an opinion that the price, fifty cents, would be fully repaid by the perusal of the two lectures alone, which gives the characters and agency of Columbus, of Isabella, of John Smith, and of Pocahontas. We take the liberty to hazard an opinion, that any lady who reads this small volume will have little to regret as to loss of time or money. The following extracts are inserted, as specimens of the manner of the Lectures.

"Columbus could never induce the court of Spain to restore his office of viceroy, but intent on his discoveries, and still hoping to reach the East Indies, left Spain in May, 1502, on his fourth and last voyage. He obtained four small vessels, was accompanied by his brother Bartholomew and his son Ferdinand, and touching at St. Domingo, sailed to the Bay of Honduras, and examined the shore from Cape Gracios ã Dios, to the Isthmus of Darien, and as far as Porto Bello. After an abortive attempt to plant a colony on the continent of South America, Columbus in 1503 again sailed with an intention to return to St. Domingo, but was wrecked on the island of Jamaica. After eight months detention amongst savages, and suffering all that could be inflicted by hunger, thirst, sickness, the malice of his enemies, and the insubordination of his own men, broken hearted, and sinking under the infirmities of premature old age, he once more, in 1504, returned to that ungrateful country which he had so greatly served. The very elements seemed now conspired against him. After leaving St. Domingo, September 2d, he encountered a tempest in which he lost his mainmast, and was forced to make the far greater part of the voyage in that destitute condition; he finally reached the port of St. Lucar in October. There was now only one misfortune wanting to fill his cup of bitterness, and the occurrence of that misfortune was the first dread news he received on his arrival in Spain. His long tried, powerful, and steady friend, the great, the magnanimous queen Isabella, was no more. She had died at Bossequillos, February, 1504; from the cold hearted, dark, and gloomy minded Ferdinand, he had nothing to hope. One solace remained to him beyond the power of kings or their minions; it was the heartfelt consciousness of his innocence. With that consolation to soften the pains and support the infirmities of his declining years, he retired to Valladolid, where he languished until the 20th of May, 1506, when in his 59th year his generous spirit winged its way to the regions of everlasting peace and rest.

"It is doubtful whether a more spotless fame has ever followed any mortal man than has been attached to the name of Columbus. When we compare the humanity, urbanity, and moderation of this estimable man, with the insolence, rapacity, cruelty, and avarice of most of the early adventurers to America, and the Indies, he appears almost an angel or a demigod. In military talents he was perhaps inferior to Vasco de Gama, to Cabral, Almeyda, Cortez, or Albuquerque, but in those virtues which soften and adorn human nature, he had no equal amongst the great characters of his age.

"It is impossible to read the recital of the continued violence and injustice which clouded and rendered wretched his closing life; but it cannot be concealed that the only weakness of which he was ever known to be susceptible, was the true exciting cause of his misfortunes. In the treaty of 1492, neither party were aware of the full value of the subject of their negociation; and when the immense regions of the two Americas and their islands began to expand, and their treasures to be developed, the danger was felt by the Spanish government, of confirming and perpetuating the too ample powers of Columbus. Powers almost regal, rashly granted, and imprudently accepted. The apprehension of those dangers were not vain; if Columbus and his family had continued to enjoy the plenitude of the grant and commission of 1492, that family would long since have been on the throne of Spanish America.

"In his natural disposition, though kind, affectionate, humane, generous, just, magnanimous and brave, he seemed deficient in some of the most essential requisites of a commander over the ferocious, turbulent, ignorant and hardy adventurers who came to America in the first few years after its discovery. I have never reflected upon the character of Columbus without admiration, nor upon the events of his life without regret; and a full conviction, that if like De Gama, Cabral, Albuquerque, and Cortez, he had been more limited in his personal ambition he would have enjoyed the fruits of his genius and labour, with more tranquility and security.

"But taken all in all, with the whole contour of his character, he certainly was, except Prince Henry of Visco, the greatest and best man who has contributed to discover the new world. Though he has not imprinted his name on this continent, his fame is beyond the reach of envy or detraction; it is incorporated into the history of the world, and associated with the most pure and sublime feelings of the human heart.

A Castillo y a Leon, Nuevo Mundo dio Colon.

"The sentiment expressed in this epitaph is too circumscribed; Columbus did not give a new world alone to Castile and Leon, he gave it to the human race."

The celebrated Segur, on Female Education, justly remarks, "Heaven in creating woman, seemed to say to man, behold either the torment or delight of your present and future existence. Give a direction to this being, calculated by the extreme pliancy of her mind, to receive all the impressions you may wish to bestow on her. It is another self which I offer you; in taking charge of her, you ought, in a certain degree, to identify her with yourself!" Her breast sustains and nourishes us; her hands direct our earliest steps; her gentle voice teaches us to lisp our first expressions; she wipes away the first tears we shed—and to her we are indebted for our chief pleasures. In fact, nature seems to have confided man to her continual care; the cradle of infancy is her peculiar charge, and her kind compassion soothes the bed of death.

Nothing, says Fordyce, can fix esteem but that kind of beauty, which depends on the splendour of a virtuous and enlightened mind. The least degree of understanding will be disgusted at petulance, caprice or nonsense, even in the fairest form. External accomplishments are continually losing; internal attractions are continually gaining. A beautiful character is, as the morning light, that shineth more and more unto the perfect day. Sense, spirit, sweetness, are immortal. All besides withers like grass. The power of a face to please is diminished every time it is seen. When beauty of looks loses its power to please, (and this will inevitably follow, as the night follows the day) the soul will seek a soul; it will refuse to be satisfied with any thing else. If it find none, in vain shall the softest eye sparkle—in vain shall the softest eye entice. But if a mind appear, and wherever it resides a mind will appear, it is recognized, admired and embraced; even though the eye possesses no lustre, and smiles, at the moment, be banished by sorrow.

"Mind, mind alone, bear witness earth and heaven!
This luring fountain in itself contains
The beauteous and sublime! Here, hand in hand,
Sit paramount the graces." AKENSIDE.

SPORTING OLIO.

FOX HUNTING.

Extract from a gentleman residing near Alexandria, dated November 15, 1828.

"Yesterday I met our friends T. and D. and some others; fourteen couple of dogs out. Found a grey fox between the factory bridge and that on the Alexandria road. After a double or two he gave us the slip by swimming the creek. We went round by the bridge to recover him; but in place of our little grey, we *bounced* (as here termed,) a gallant red fox, which, after a double round Pennyhill, broke away for the clear grounds on the river; passing Major Hunter's plantatinn, the brick bridge through the enclosures of Arlington to the Georgetown ferry, where he doubled to the left, leaving Arlington wood to the left and the Georgetown ferry road to the right, he ran to Chapman's woods; the first five miles was up the wind. He now found it a losing game, and doubled short back for Arlington, passed near the house and through the lawn, through the low pasture grounds near the river, and was evidently making for Pennyhill, but between the causeway and turnpike gate he was viewed by the dogs, ran to and killed. The chase was a little more than an hour and a quarter."

(From the N. Y. Evening Post.)

DUTCHESS COUNTY RACES.

We are indebted to a friend, who was an eye witness of the different performances of speed at the races at Poughkeepsie last week, for the following particulars. His lively description is worthy a Pierce Egan.

Dutchess County Races.—The races over the Dutchess Course terminated on Thursday last, without an accident or occurrence of any kind to mar the pleasures of the thousands who assembled to witness, and were advocates for these periodical and regulated trials of speed, or to excite a feeling of disappointment or regret in those who were solicitous to remove the prejudices of such as held racing incompatible with good morals or good order. The first exhibition on the Dutchess Course has gone far to prove the error of the one opinion and the entire fallacy of the other. Their extensive buildings were filled with people of the first standing and respectability from different parts of the state, and the stand appropriated to the ladies crowded with the beauty and fashion of the counties of Dutchess and Columbia. The weather was delightful. The course, one of the most beautiful in the Union, and the strict order and decorum preserved on it, added to the satisfaction of the numbers who witnessed this first attempt in Dutchess to prove the justice and utility of the law, which gives to the farmer (what it is hard to deprive him of) the right as well as the opportunity of trying the speed of his colt, without risking his morals or his limbs Jeanette, Betsy Ransom, and Rob Roy, were entered for the first day's purse, $500, four miles and repeat. There was but little betting on this race, and little sport expected. Rob Roy was untried for four miles, and Jeanette was known to be lame—Betsy Ransom was therefore the favorite at three and four to one. The heat was contended for by Betsy Ransom and Jeanette, and contrary (as it often happens) to the general expectation, Jeanette passed her in the last half mile, and won the heat by two or three lengths; and with apparent ease, in 7 minutes 53 seconds—Rob Roy just saving his distance. This changed the face of affairs, and even bets were offered by those who argued, that as her leg had stood one trial it might stand another. The second heat proved the fallacy of this hope. Jeanette broke down and came in dead lame, Rob Roy was distanced, and the heat, together with the money, was awarded to the grey mare.

Immediately after the purse race, the ladies' cup, richly chased, and valued at $100, was contended for by Lady Jackson (an Eclipse filly,) Fox and Sportsman, two horses celebrated for their speed—one mile and repeat. It was won by Lady Jackson in two heats—the first in 1 m. 50 s., the second in 1 m. 52 s., and presented to the rider, in the name of the ladies, by Mrs. Livingston.

Splendid, Sir Lovel and Lady Flirt, were entered for the second day, purse $300, three miles and repeat. This was won in fine time by Flirt in two heats—the first in 5 m. 53 s. the second in 5 m. 54½ s. It was a beautiful and well contested race. Splendid passed Flirt in the commencement of the third mile of the second heat, but was unable to maintain his ground; the Lady asserted her right to precedence, and in spite of the strenuous efforts of Splendid and Sir Lovel, regained the lead, and gradually increased the distance between her Ladyship and them, as if afraid of trusting herself longer within the reach of such ungallant competitors. As soon as this race was over, another purse of $50 was given, and run for by Fox, Sportsman, &c. This was won by Fox in two heats—the first in 1 m. 51 s. the second in 1 m. 52 s. Sportsman was very restive, and lost two or three lengths each heat in the start. This day's race was followed by a Ball, numerously and brilliantly attended by much of the beauty and fashion of Dutchess and Columbia counties, got up in good style by the members of the Jockey Club. The room was handsomely decorated by the ladies, and the music and supper such as did credit to the legitimates, Bennett and Samuel, to whom those important departments were confided.

On the third day, purse $200, two mile heats—Trouble, Lady Jackson, Sir Lovel and Hopeless were entered. This was the most interesting race of the three days. Lady Jackson won the first heat in 3 m. 54½ s. beating Hopeless half a length, and was the favourite at three and four to one. Trouble but just saved his distance in this heat, and was supposed (from the shortness of his training and stride,) to be totally unable to cope with so fleet a one as her Ladyship had proved herself to be. But here again they were mistaken; he lengthened his stride and won the 2d heat under a hard pull, in 3 m. 53s. Hopeless was withdrawn, and the case of the other two evidently as desperate, as the event of the next heat proved. Trouble beat them with ease in 3 m. 51½ s., adding (to the satisfaction of his old friends,) another laurel to his own and his trainers' brows.

The last, though not the least amusing, of the races took place immediately after, for another purse of $50, one mile and repeat. Sportsman, Roman, a colt from Dutchess county, and Dandy Jack contended for it. The first heat was won by Roman in 1m. 52s.; the second was a dead heat between Sportsman and Roman; the third heat was won by Sportsman, distancing the Dutchess county colt.—Roman was withdrawn, and it was now 100 to nothing, Sportsman against Dandy, who had contrived, by hook or by crook, to save his distance in each previous heat. They started, and had not gone far before Sportsman bolted, and lost 150 to 200 yards before he could be brought to the track again. Dandy went on his way rejoicing, thinking, no doubt, the gap too wide to be made up; but, alas, poor Dandy (like many of his tribe,) was a rum one to look at and a bad one to go; he was overtaken and beaten almost in the arms of victory. This contest finished the third day, and ended a display as rational as honourable, (when directed by honourable men,) and as useful as most others; at least this is the opinion of a friend to the course and its legitimate objects—amusement, and the improvement of the breed of horses.

The Emperor of Horses is no more.—Screw Driver is dead!—He died suddenly on Sunday the 19th October, 1828, in his training stable at Philadelphia. This is the noble animal that trotted and won at Philadelphia the silver cup and $300, on the 15th of May last, beating Betsy Baker and Top Gallant. On the 7th inst. he won the $300 purse upon Long Island, and was intended for the $300 purse to be trotted for on Tuesday the 21st inst. at Philadelphia. He was considered the best trotter ever known in this or any other country, of a fine figure and excellent temper. He was the property of J. P. Brown of this city. [*Phil. paper.*

DUCKING.

The French have a curious mode of taking wild fowl, which Col. Hawker, in his interesting, and, to sportsmen, invaluable work on shooting, denominates "hut shooting." A place of concealment for the gunner is fixed on the margin of a pond, frequented by wild fowl at night. Twelve tame ducks, more or less, are tied to three lines, four to each line, extending in a parallel direction from the shore to the centre of the pond, and fastened to stakes at each end. The middle string has drakes attached to it, the outer ones ducks. In this situation they keep constantly calling to each other, for Colonel Hawker remarks that there is as much difference between the loquacity of a French and an English duck, as there is between two individuals of these nations. The gabble of the tame ducks induces wild ones to alight, and when there is a sufficient number collected, out of range of the decoys, the gun is discharged from the hut, with great execution. We have seen this kind of shooting practised on the eastern shores of Massachusetts, by fastening tame ducks to a stake in creeks, &c. to serve as decoys. A stuffed wild duck, fastened to a shingle, properly balanced with lead to keep it erect, and anchored in the stream, serves as an excellent decoy, which we have often seen used with great success.

DECOY DUCKS.

At the magnificent estate of Count Marnix, the grand verneur of the Netherlands, there are such immense decoys for wild ducks, that in winter time during a hard frost, fifteen hundred to two thousand couple of wild ducks are caught; and in a favourable season, most of the towns within one hundred miles of Bornheim are supplied with them at the rate of 1s. 3d. a couple. In the middle of this estate there is a lake about seven miles in length, which, many centuries ago, formed a branch of the Scheldt. Here a mode of angling, or rather making ducks angle, is practised. To the legs of half a dozen tame ducks, short lines with hooks and baits are attached; the birds swim about, and as the lake is well stocked with fish, in a few minutes they are sure to bite; a struggle then takes place between the duck and fish, the latter attempting to escape, and the bird endeavouring to get to the shore, where, the instant he arrives, a good supply of food is given to him. The scene is truly ludicrous, and indeed cruel, when it happens that a large pike seizes the bait; the poor bird struggles with all his might to reach the bank, but is often pulled under water, and would be drowned, did not a person go out in a boat to his assistance.

MISCELLANEOUS.

THE BEECH TREE,

Proof against the Electric Fluid.

Mr. Skinner, *Dayton, Ohio, Nov.* 1828.

The communication in your paper upon the subject of the effects of lightning upon cedar, or rather its non-effect, has induced the following. I give you the facts so far as I am able, and they may lead to some further observations, which may result in usefulness.

Passing through some of the wilderness districts of Ohio during the last summer, in company with a gentleman who had spent his life in the woods, surveying and exploring, when a heavy thunder storm came up, and it was then observed by the gentleman that we should try and find a beech tree under which to take shelter. In the course of conversation it was stated that it was a common opinion among surveyors and woodsmen, that the beech possessed the quality ascribed to the cedar; that one had never been known to be stricken by lightning, and that during the heaviest thunder storms, they felt perfectly secure when they could find shelter under the spreading branches of a large beech.

The statement induced me to further observation and enquiry. I have never since passed a tree which had been riven by lightning, without its recalling it to my recollection, and caused me particularly to notice; and I presume I have passed an hundred oaks which have been stricken, and although beech is more common than any other timber, I have not discovered one of that kind, nor have I any recollection of ever having seen one previous to the above occasion which called it particularly to my notice. I have also uniformly learned upon enquiry of those who are accustomed to the woods, that such is the prevailing opinion as stated.

I give you the facts as I have them. If they are well founded, and if the timber stated has the property of resisting the effects of lightning, it is proper it should be universally known. One well attested instance of a beech having been struck by lightning would at once decide the question, and show the fallacy and error of the opinion, as it should be, if without foundation. On the contrary, if an instance of similar character with the one described in the Farmer could be referred to, it would go very far in establishing the position. In an agricultural view it is worth enquiry. If beech has this property as contended, and as animals in storms seek shelter, it would be well to leave, in clearing, or plant beech trees, where grazing animals might seek shelter and safety.

Yours, with much respect.

H. B.

A GOOD NAME.

It is ever to be kept in mind that a *good name* is in all cases the fruit of *personal exertion.* It is not inherited from parents; it is not created by external advantages; it is not a necessary appendage of birth, or wealth, or talents, or station; but the result of one's own endeavours—the fruit and reward of good principles, manifested in a course of virtuous and honourable actions. This is the more important to be remarked, because it shows that the attainment of a good name, whatever be your external circumstances, is entirely within your power. No young man, however humble his birth, or obscure his condition, is excluded from the invaluable boon. He has only to fix his eye upon the prize, and press towards it in a course of virtuous conduct, and it is his. And it is interesting to notice how many of our worthiest and best citizens have risen to honour and usefulness by dint of their own persevering exertions. They are to be found in great numbers, in each of the learned professions, and every department of business; and they stand forth bright and animating examples of what can be accomplished by resolution and effort. Indeed, in the formation of character, personal exertion is the first, the second, and the third virtue. Nothing great or excellent can be acquired without it. A good name will not come without being sought. All the virtues of which it is composed are the results of untiring application and industry. Nothing can be more fatal to the attainment of a good character than a treacherous confidence in external advantages. These, if not seconded by your own endeavours, will "drop you midway; or perhaps you will not have started when the diligent traveller will have won the race."

Thousands of young men have been ruined by relying for a good name on their honourable parentage, or inherited wealth, or the patronage of friends. Flattered by these distinctions, they have felt as if they might live without effort—merely for their own gratification and indulgence. No mistake is more fatal. It always issues in producing an inefficient and useless character. On this account it is that character and wealth rarely continue in the same family more than two or three generations. The younger branches, placing a deceptive confidence in an hereditary character, neglect the means of forming one of their own, and often exist in society only a reproach to the worthy ancestry, whose name they bear. [*Hawes' Lectures.*

(From Gen. Miller's Memoirs.)

BOLIVAR.

"The person of Bolivar is thin, and somewhat below the middle size. He dresses in good taste and has an easy military walk. He is a very bold rider, and capable of undergoing great fatigue. His manners are good, and his address unaffected, but not very prepossessing. His complexion is sallow, his eyes dark and penetrating, but generally downcast, or turned askance when he speaks; his nose is well formed, his forehead high and broad, the lower part of his face is sharp; the expression of the countenance is care-worn, lowering, and sometimes rather fierce. His temper, spoiled by adulation, is fiery and capricious. His opinions of men and things are variable. He is rather prone to personal abuse, but makes ample amends to those who will put up with it. Towards such his resentments are not lasting. He is a passionate admirer of the fair sex, but jealous to excess. He is fond of waltzing, and is a very quick but not a very graceful dancer. His mind is of the most active description; his voice is loud and harsh, but he speaks eloquently on all subjects; his reading has been principally confined to French authors, hence his Gallic idioms so common in his productions. He entertains numerously, and no one has more skilful cooks, or gives better dinners, but he is himself very abstemious in both eating and drinking. Although the cigar is almost universally used in South America, Bolivar never smokes, nor does he permit smoking in his presence. He keeps up a considerable degree of etiquette; and disinterested in the extreme with regard to pecuniary affairs, he is insatiably covetous of fame. Bolivar invariably speaks of England, of her institutions, and of her great men in terms of admiration."

Mr. Cobbett's Beau-Ideal of a Labourer.

The following characteristic advertisement appears in Cobbett's Register: "I want three or four labouring men *for the winter*, at three shillings per week, boarded and lodged in my farm-house. They must be *single* men, young, stout, and know how to do work upon a farm, and willing to rise early, to keep home steadily, and to be, at all times, sober. None need apply if they have ever lived a week, at any time, *within forty miles of London*. I prefer men from any part of Wiltshire, and from North Hants; but I *object* to no county, provided the parties have not lived within the above distance of London, and have been in farm service, or farm work, *all their lives*. In the spring the men may go away, if they like; and, indeed, they may quit my service whenever they like, I being at liberty to quit paying them when I like.

"N. B. No man need come, unless he have a smock frock on his body, and nailed shoes upon his feet."

Customs of Nantucket.

A major part adhere to the old method of riding in a horse cart, without either springs or seats.—When ladies ride in them, the cart is backed up to the door, the lady brings out her chair, steps from it into the cart, and then drawing her chair after her, sits down in it, and the *carriage* drives off. As fashion rules in every thing, this is just as well as any other way, since the first and wealthiest make use of it as well as the poorest. In this place, as a man is neither known by the company he keeps, nor the coat he wears, the wealthiest merchants have been often taken for common draymen, when driving their carts, and have often been called upon to act in that character. While we were there, some strangers from the continent on arriving at the wharf, pressed into their service two cartmen, whom they loaded most unmercifully with baggage, and put their service in requisition in unloading and stowing away at their boarding house, but found, to their utter mortification and surprise, upon offering to pay for those services, that their cartmen were two of the richest men on the island, who of course refused any compensation, saying with a good natured smile, that whenever they wanted their services again they would know where to call. There is not a public house on the island, but if all the boarding houses are of a similar character to the one at which we *stopped*, no one can complain of his accommodations. Besides the known hospitality of its citizens always insures to a respectable stranger every proper kindness and attention. [*Worcester Yeoman.*

Upwards of three hundred barrels of Maple Sugar have been received by the Canal, which has been sold at five cents a pound. Last season we understand a parcel of about seventy barrels was received. It is supposed the manufacture of this article will increase, and that it will soon be one of considerable importance. The supplies of sugar from New Orleans have already increased to such an amount, that they are rapidly taking the place of foreign sugar, and it is supposed by many intelligent persons, that in a very few years the supplies from New Orleans and elsewhere, will be sufficient for the consumption, and that no foreign sugar will be required. [*N. Y. Daily Adv.*

A new species of *Bejuco de Guaco*, so celebrated in South America for its power of curing wounds made by the most poisonous serpents, is now in full flower in the stove of A. B. Lambert, Esq. of Bayton House, Wilts, (one of the Vice Presidents of the Linnean Society,) running from one end of the stove to the other, and filling the house with the perfume of its flowers; it was raised from seed sent from Carthagena last year. The *Theophrasta Americana*, a most curious plant, with the appearance of a palm, raised from seed brought from St. Domingo by Dr. Hamilton ten years ago, has also flowered in the same gentleman's stove this summer. [*Devizes Gazette.*

THE FARMER.

Baltimore, Friday, November 28, 1828.

☞The officers of the Maryland Society for Promoting the Culture of the Vine, will hold a meeting at the residence of George Fitzhugh, Jr., Esq., on next Tuesday, at four o'clock, P. M. They are earnestly requested to be punctual in their attendance, as business of importance will be submitted to them.

☞ The day was so tempestuous that the Board of Trustees of the Maryland Agricultural Society did not form a quorum at Homewood, on Thursday last; of course no business was transacted, nor, as we believe, was any day appointed for their next meeting.

The price of grain is at a stand, and will so remain, to be affected again probably by the next news from England. Red wheat is at about $1.48; best white, weighing 60 pounds, would bring $1.55.

☞ We shall feel indebted to any gentleman at or near the seat of government of each State, who will send us the usual report on the income and expenditures of the state.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS GENERALLY.

The subscriber has on hand, ready for sale, a supply of his Cylindrical Straw Cutters, a machine he believes to be superior to any other in the world for that purpose. Brown's Vertical Wool Spinner, a very useful and simple machine for private family use, perhaps not equalled by any other. A full assortment of Gideon Davis' Patent Ploughs; the superiority of these over all other ploughs is so generally known, that to speak of their merit is unnecessary. A general assortment of highly improved Barshare Ploughs; Corn and Tobacco Cultivators; Patent Corn Shellers; Wheat Fans, warranted equal to any in the the state of their size; Harrows; Double and Single Swingle Trees; Shovel and substratum Ploughs; superior Cast-steel Axes; Mattocks; Picks and Grubbing Hoes; superior Oil Stones and Points, and Heels, of all sizes for Davis' Patent Ploughs, always on hand. Blacksmith work and repairs done at short notice and at customary prices. The subscriber intends keeping no article for sale in his line, but such as will give satisfaction to his customers.

Orders received for Fruit Trees from Gray's Nursery. All orders received by mail (post paid,) will receive due attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite Marriott & Warfield's hotel.

N. B. Tough White Oak Butts, six feet long, and not less than eight inches diameter at the small end, large size quartered, will be received for work.

A GREAT BARGAIN!!

In Lancaster county, Va., immediately bounding on the Chesapeake Bay, a very valuable Farm, consisting of 370 acres of land, is offered for sale at the very reduced price of eleven dollars per acre. There is some valuable white oak timber on the land, and large sea vessels may approach within forty yards of the shore. The exportation of timber and cord wood from said county to New York city, is highly recommended as a means of considerable speculation. Address "R. Y. S." or "B. A. C.", Nuttsville, Lancaster county, Va.

AGRICULTURAL ALMANACK,

For the year 1829, (patronized by the Philadelphia Society for promoting Agriculture.) "Let us cultivate the ground, that the poor as well as the rich may be filled, and happiness and peace be established throughout our borders."

For sale; by JOHN H. NAFF,
Nov. 28. 10, *South Charles-st.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,
No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 8.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rappahannock 2.75 *a* 3.50—Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $8.00 *a* 9.00—superfine Howard-st. 7.00 *a* 7.25; city mills, 6.50 *a* 6.75; Susquehanna, 6.75 *a* 7.00—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.40 *a* 1.50—best white wheat, 1.50 *a* 1.60—ord'y to good, 1.25 *a* 1.40—Corn, old, .45 *a* .50—new corn, .40 *a* .45—in ear, bbl. 2.00 *a* 2.25—Rye, bush. .45 *a* .50—Oats .32 *a* .33—Beans .75 *a* 1.25—Peas .45 *a* .55—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, .27—bbls. .28 *a* .29—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3. 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore .12½—hog round, cured, .8 *a* .9—Pork, 4.50 *a* 5.50—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

In consequence of the last advices from England, the prices of grain have declined considerably, and our market much more settled. A cargo of Mr. J. Paca's wheat, from Wye river, sold on Wednesday at $1.41, white wheat of inferior quality; sales of red wheat yesterday at 1.48 and 1.43; and sales of new corn at .43 and .45 cents.

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AGRICULTURE.

(From the Southern Agriculturist.)

ON THE MANUFACTURE OF INDIGO.

On the Culture, Gathering and Dyeing of the Indigo Plant, and the Manufacture of Indigo—by the Marquis de Fougere.

[Translated from the French.]

The gentlemen in South Carolina being perfectly well acquainted with the culture of indigo and the choice of seeds and soil, it is deemed unnecessary to translate that part of the author's instructions which relate to these objects.

Gathering of Leaves.

The proper time for cutting the plants, may be known by various signs which are more or less certain; it will always be known when the plants have arrived at perfect maturity and contain the greatest quantity and best quality of fecula which they can produce, when the greater part are in full blossom, and the seeds begin to appear.

The branches of the plant must be cut at about one inch from the stalk, with pruning knives or any other sharp instrument. When, after some time, the principal branches will have become stouter, it will be well to leave them and only to cut the secondary ones, in the way above mentioned.

This relates only to the indigo plant of Senegal; if the Bengal plant be cultivated, it will be necessary to cut (with sickles,) the whole plant at four or five inches from the earth, leaving on the stalk the inferior part of the first branches. The leaves must never be torn from the branches; for they would no longer be susceptible of being properly dried for the manufacture of indigo.

The cutting should never begin, but five or six days after a rain and in a day of warm weather, so that the leaves may, in one day, acquire such a degree of dryness as will permit them to be kept in a heap without fermenting until the next day.

As the leaves which have been cut at sunset, can pass the night without alteration, they may be gathered from five o'clock until night, and the work may be resumed in the morning, and continued until half past eight o'clock only. It will be easily perceived, that in cases of emergency, the work may last all night. In all cases the plants must be transported in bundles to the dryers, and there immediately opened. They should be *compressed together during as little time as possible;* one hour being often sufficient to create heat, blacken them, and deteriorate the fecula which they contain.

The dryers generally consist of an area of flat brick-work, covered with cement and surrounded by a wall two feet high. In dry weather, when it has not rained for a long time, and the soil is perfectly dry, any spot will answer for this purpose; but care must be taken not to use a damp place, which would destroy the crop.

Dryers may be formed at once, which will unite all the requisites favourable to the prompt and complete drying of the leaves, by placing all their surfaces in contact with a current of air, and by permitting them to receive the reflection of heat from the soil, which by its nature, can throw out a great quantity. These dryers consist of a number of poles placed horizontally and equally distant, and supported by forked stakes, driven into the soil, which should be covered with very dry white sand. The dryers must be located on an open spot, distant from any pond, river or trees, and to windward of any cause which might produce dampness.

Whatever way be the mode employed to dry the leaves, the branches must be exposed to the rays of the sun at eight o'clock at farthest, one separated from the other, and never in a heap. At mid-day they should be turned over, (when the air is very dry, the second kind of dryers, of which we have spoken, will avoid this trouble.) At half past four, all that has been dried during the day, must be united in heaps and beaten with rods, in order to detach the leaves from the branches; the latter should be set apart. The leaves must then be collected with brooms (a few of the branches tied together will answer this purpose,) and transported to a dry place. It will be well to cover them with mats or sail cloth, without any compression. However, should they not be perfectly dry, it will be more advantageous to open them on the floor of a dry store-house, and lay them in strata of three or four inches, turning them over during the night, in order to prevent the generation of heat. *This accident, which may lead to the total loss of the crop, must be studiously avoided.*

[Here follow remarks which do not apply to South Carolina.]

The heat of the sun during one day will not always be sufficient to dry the leaves properly; the operation must be recommenced on the day following at nine o'clock, laying the leaves two inches thick, turning them over at times with rakes or wooden shovels; at three or four o'clock, (never later, in order to prevent the absorption of any moisture from the evening air,) fan them, in order to separate the seeds and small sticks, heap them in a dry stack-house, whose floor should be boarded; then they should be strongly compressed and covered with mats; in fine, every precaution should be taken to preserve them from dampness, and, above all, from rain.

The leaves of indigo are known to be perfectly dry when they preserve a perfect unstained green colour, somewhat paler than that of the fresh leaf; when they can be easily reduced to powder by crumbling them between the fingers; (when kept for some time, they lose, without any injury, a part of this quality, but they should never be stored without it;) when they have the smell of dried clover, (*lucerne,*) and are free from *brown* or *blue* spots. In the latter state, they would yield little indigo, and it would be impossible to extract any from leaves in which either of these colours should be predominant.

When the indigo leaves have been carefully dried and possess all the requisite qualities, they may be preserved without alteration during two months, in a dry store, and may even be transported in bags. They should, however, be visited at times, and should they present any appearance of dampness or blackness, it will be prudent to expose them to the sun on a dry day, and to manufacture them as soon as possible.

Manufacture of Indigo.

The difficulties which attend the dessication of leaves, vanish in dry seasons. The care which we bestow by this method is amply compensated by the facility with which indigo is manufactured from the dry leaves: an operation which formerly required much experience and many days of labour, is now performed in less than twelve hours, by an intelligent person who has witnessed it once. There are no particular phenomena to be observed, and the fermentation of twenty or thirty hours, during which one was exposed to lose his crop, or deteriorate the quality of it, *is now reduced to a simple infusion of two hours.* It is the watch that now guides the series of operations which lead to the extraction of indigo, during which time, the workmen are no longer exposed to unhealthy effluvia, especially when the workshops are kept clean.

I shall briefly describe the method of manufacturing indigo on a small scale, and in such a manner that the smallest planters may execute it themselves at little expense, and without other utensils than those commonly required in a family.

Workshop.

The workshop will consist of

1. A log house twenty feet long and twelve or fifteen feet broad, with a door in the centre
2. Nine empty claret casks.
3. Two tubs, made from a wine cask, sawed in two.
4. Two churn staffs, made with a piece of board nine or ten inches square, and a handle fastened perpendicularly in the centre, and two spatulas, or paddles of wood.
5. Four wooden frames, fifteen inches square, covered with coarse cotton cloth.
6. Six calabashes, of different sizes.
7. A large kettle, capable of containing twenty gallons.
8. A skimmer with a long iron handle.
9. Three or four boxes, a foot square, and six inches deep, with moveable tops and bottoms, perforated with small holes (1-10th of an inch in diameter,) on all their surfaces.
10. Three or four pieces of coarse cotton cloth, eighteen inches square.
11. A few blocks of wood, ten inches square and six inches thick.
12. A long and stout pole, for a lever to press the indigo.
13. A few mats.

Remarks on No. 2.—The casks must be set up right, and one of the heads of each must be taken out. The diameter of four of these heads must be diminished by one inch. Eight of the casks must be perforated through one of the staves at the bottom, with a hole of three quarters of an inch in diameter, and four of these will moreover be perforated with a hole half an inch in diameter, and four inches higher than the others. The casks should be of the best kind, properly cleaned and fitted with strong iron hoops. The four casks which have but one hole, are designed for steeping the leaves, and may be called *steepers.* The other four, which are perforated with two holes, may be called *receivers.* The union of one *steeper* and one *receiver,* is called a *set.* The ninth cask will contain lime water, and is called the *lime cask.*

No. 3. The two tubs must be scraped in order to remove all the tartar and colour of wine lees, with which this wood is always impregnated; they moreover should be strengthened with iron hoops. They are destined to receive the settlings of the *receivers,* and to support the filters, No. 5.

No. 5.—These frames may be made with any sort of wood, provided they be strong. Covered with cloth, they are used as filters to drain the indigo.

No. 13.—The straw mats are used to dry the indigo, and to supply the place of a drying house.—They may be suspended on poles, supported by stakes driven into the ground.

Location of the Workshop.

The workshop should be located as near as possible to water; whether a river or well. The water may be either sweet or salt, but as a portion of the former is always necessary for boiling and washing the indigo, it will be better to use it entirely. Indeed, the operation of washing may be dispensed with, when sweet water has been employed in *steeping* the leaves. The limpidness of the water conduces, in a great measure, to the beauty of the product.

The steepers should be so elevated, that in withdrawing the stoppers, the water may run into the *receivers.*

Manufacture.

When a sufficient quantity of dried leaves have been collected, nothing can be more easy than the extraction of indigo. The operation is reduced to this: First, forty-four gallons of water in one of the steepers, (it will then be three-fourths full,[*]) add thirty-five pounds of dried leaves, (they must be fanned when they have been kept more than a fortnight,) steep the leaves well, agitating them by means of the churn-staff, (No. 4;) renew this agitation twice during the two hours which the infusion or steeping must last; place, after two hours steeping, a filter, (No. 5,) on the *receiver;* draw out the plug from the *steeper,* (the small portion of leaves which may come out will be retained in the filter,) and the clear liquor will fall into the receiver; when the liquor, which must be green, will no longer flow, add, at different times to the leaves in the steeper, fifteen or twenty quarts of water; place, on the leaves in the steeper, the head of the cask, and let them be compressed[†] so as to give out the last portion of liquid which they may contain; compress with the hands the few leaves which may remain on the filter. The latter part of these operations will only require five minutes.

We must now proceed to the beating of the liquid, which is performed by moving the churn-staffs up and down.[‡] (During this operation, which lasts three-fourths or one half hour, according to the quantity, the scum passes successively through different shades of blue, until it arrives at that of *Persian blue.* When it has attained this colour, it passes gradually to that of a light blueish grey. As soon as this tint appears, the beating must be discontinued; generally there appears a slight excess of beating. It is known to be terminated, when on putting a small portion of the liquid into a glass, there appears small grains, which are detached and precipitated by the addition of a few drops of lime water, leaving the liquid in which they swim, clear and of a dark yellow colour.) In operating quickly on small quantities, the beating may be generally considered as terminated in three-fourths of an hour. At this time, ten or twelve quarts of lime water must be added, and slightly agitated, to mix the liquids; then allow the whole to settle.

The lime water is prepared by throwing four or five pounds of good lime into a cask of water, agitating for a few minutes and allowing it to settle. It should always be prepared before hand, and employed in a perfectly limpid state. It is drawn from the casks by means of the stopper.

In half an hour after the beating has terminated, the indigo is generally deposited at the bottom of the *receiver.* The upper hole must then be opened, in order to allow the *mother water* to escape; the indigo which is found at the bottom in a liquid state, must be placed on a filter to drain it. In the mean time the copper boiler must be filled two-thirds with water, and fire applied; the indigo in paste must be mixed in a calabash, with a small quantity of boiling water, and when it no longer presents any lumps, it must be thrown into the boiler, after straining through a piece of coarse canvass. The ebulition of the water is of course stopped by this addition, but it soon recommences, and must be checked twice by the addition of cold water. The flakes which may float must be carefully removed with the skimmer; the boiler must then be filled with cold water, and the fire withdrawn. The whole must be allowed to settle. The limpid water is drawn off from the indigo, and the latter drained on a filter. Should the first draining of water carry along any indigo, it must be again filtered.

When the indigo is sufficiently drained, that is to say, when no more water escapes from it, and it has arrived at the consistence of a thick paste, and begins to split and separate from the filter, it is to be removed with a spatula into a calabash, and there agitated, in order to give it a uniform consistence. A wet cloth, (No. 10,) must then be applied to the boxes, (No. 9,) and so carefully spread as to produce no plaits or folds. The indigo must then be put in the boxes, and covered over with the edges of the cloth. The cover of the box must then be fitted, one of the blocks (No. 11,) applied over it, and the whole pressed gradually. When the water ceases to flow by this compression, the cover is removed, and the loaf of indigo is allowed to remain an hour in the box, in order to dry the cloth. With this precaution, the loaf is easily removed. It must then be divided in equal squares, with a knife or wire, as is used in soap making. They must then be dried on the mats, (No. 13.)—This last operation must not be performed too hastily; the indigo must be screened from a draft of air, which would cause it to split. Ten days are generally required to dry the loaves, and they should be frequently turned over during this time. The indigo is sometimes covered with efflorescences, which should be removed by a brush or rags; this friction gives it a copper cast, and is called *dressing.*

(From Loudon's Encyclopædia of Agriculture.)

OF THE FEEDING OF HORSES.

(*Continued from p. 290.*)

The feeding of horses generally, is an important feature in their management. In considering the food for horses, we are apt to locate our notions to the matters around us, without taking into account that every country has its peculiar products.—White observes, that the best food for horses is hay and oats; and had he added for English horses, it might have been just, but without such notice the assertion is much too confined. In some sterile countries, horses are forced to subsist on dried fish, and even vegetable mould; in Arabia on milk, flesh balls, eggs, broth, &c. In India, where the native grasses are tall, but little nutritious, the better sorts are fed on Indian corn, rice, millet, &c.; and the poorer on rushes, sedge, leaves, &c. In the West Indies on maize, Guinea corn, and sugar cane tops; and in some instances on the sugar itself, in the form of molasses. In France, Spain, and Italy, besides the grasses, the leaves of limes, vines, the tops of acacia, the seeds of the carob tree, &c. are used.

The food of British horses may be divided into herbage, grain, roots, and mixtures. Of *herbage,* the principal kind is the proper gramina, eaten either moist or dried into hay. When eaten moist in their natural state, such a horse is said to *graze;* but when these matters are cut and carried into the stable to a horse, he is said to be *soiled.* Hay is herbage cut during its flowering and seeding processes, which being subjected to the action of the sun and air a proper time, are then collected into large masses called ricks, where a certain degree of fermentation takes place before the matter is fitted to become wholesome or nutritious, or before it receives such alteration as fits it for resisting further decomposition and decay. The judicious management of this fermentative process, forms one of the greatest desiderata in hay making. Pursued to a proper extent, the remaining moisture acting on the farinaceous parts, as the seeds, &c. in conjunction with the heat evolved during the process, as it were malts the whole, and sugar is produced. Pushed beyond this, the hay becomes carbonized, and mow burnt; its nutritive properties are lessened, and its noxious qualities increased, it being found in this state to excite diabetes, sweating, and extreme weakness and emaciation. The quality of the hay is too little attended to, but which is of very great importance; and more particularly so where little corn but much hay is given. Hay should therefore be of the best, whether meadow, clover, or mixed. Many horses thrive best on clover hay, particularly draft horses. It is very grateful to horses, and it saves much waste of saliva; to sprinkle hay with water has the same effect, but it should only be done as it is wanted.

Hay should never be given in large quantities at a time; horses breathe on it, become disgusted, and then waste it. They also, when it is good, eat too much, and distend their stomachs, and then become crib-biters. Hay should not be kept in the stable in great quantities, otherwise it becomes impregnated with the volatile alkali of the stable, and is then spoiled. As substitutes for hay, the straw of wheat, barley, oats and rye are used; but these are much less nutritive, and rather serve to excite mastication by mixing them with other matters, than to be depended on for animalization. On hay, when good, many horses subsist; and when no exertions are required of them they are sufficiently nourished by it.

The grain used as horse food is of various kinds, possessing, it is supposed, different degrees of nutriment, according to their different proportions of gluten, sugar, or farinaceous matter. In South Britain, oats are almost exclusively used as horse grain; and which, according to the experiments of Sir Humphrey Davy, as we have seen, contain 748 parts of nutritious matter out of 1000. In wheat, 955 parts of 1000 are nutritious; but wheat is seldom given with us except to racers and hunters, or on extraordinary occasions when great excitement is required, when it is sometimes given in the form of bread. Barley is more frequently given than wheat, and contains 920 parts in 1000 of nutritious particles. Made into malt, where its sugar is evolved, it becomes still more highly nutritious. Barley appears to have been the principal horse food of the ancients.

The pulse used as horse food, are the seeds of beans, peas, vetches, &c. Beans are seldom given alone on account of their heating and astringent qualities, but are mixed with straw or hay, cut into chaff, either whole or broken.

The roots used as horse food, are such as contain much sugar, but in which the gluten is in small proportion only. Carrots stand deservedly high on this list. They are favourable to condition, as the skin and hair always look well under their use.—They are highly nutritious we know, from the fattening that occurs from them. They also generate good flesh, as we know horses can work on them, and have their wind increased by their use; indeed, so favourable are they to the proper action of the lungs, that a course of carrots will frequently remove the most obstinate coughs. The parsnip has similar properties. Swedish turnips, as having the saccharine particles in abundance, are also found good. Beet root likewise.

Mixtures, or mixed food, is formed of several kinds among agriculturists; and it possesses many advantages, as it can be varied to every taste, and made either cooling as an alterative, or nutritious and stimulating as a tonic. Although it is principally used for wagon, post and farm horses, it would be better were its use more universal. Of this manger feeding, one of the best is formed from a chaff made of one part best meadow or clover hay, and two parts wheaten straw; to three bushels of this mixture add one of bruised oats. The importance of bruising or flattening the oats is very great. When used whole, the grains are apt to slip between the teeth or the chaff in mastication. In fact, corn when either given alone, or with chaff, would in most instances benefit by bruising. To horses under great exertion, the stomach must be, to a certain degree, weakened also; in such cases, by bruising their corn, not only the work of mastication is much of it spared, but that of the stomach also. In old horses with worn teeth, bruised oats are of great consequence. Fast eating horses do not properly masticate more than one half of their corn; much of it remains in the dung so perfectly unaltered, that it will afterwards vegetate; and the celebrated agriculturist Curwen states, that during his residence in India, in a season of scarcity, half famished wretches actually followed the cavalry, and drew their principal subsistence from the unchewed grains of corn extracted from the excrement of the horses. Of this manger food, three, four, five, or six pecks may be given daily, according to size and exertions required; and as but little hay is required, so hard worked horses are enabled to lie down much more, instead of standing on their already fatigued limbs to eat hay.

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[*] The French wine casks contain about sixty gallons.

[†] The weight of a man on the leaves will be sufficient; a greater weight might injure the quality of the indigo.

[‡] As in the act of churning butter.

Cooked food is also now much used by practical agriculturists for horses. The articles made use of are potatoes, carrots, turnips or parsnips. To horses with their digestion weakened by hard work, old age, or other causes, food in sufficient quantities, thus already reduced to a pultaceous mass, resembling chyme, without the loss of time or waste of saliva, may be very important: for as Curwen very judiciously observes, a horse will consume nearly six hours in eating a stone of hay, whereas he will eat a stone of steamed potatoes in twenty minutes. Horses are observed of themselves to lie down after eating cooked food sooner than other times.

The quantity of food to be given to a horse must be regulated by circumstances, the principle of which is the exertions or nature of the work required of him. If this be simply laborious, as drawing of loads, or carrying of weights, all that is requisite is that the food be sufficiently nutritious. The bulk from whence such nutriment is gained is not a matter of import: but if such exertions are to be combined with celerity, as in our racers, hunters, &c., it is evident that such feeding is the best adapted to the end required which combines nutriment without bulk; and which increases the durability by increasing the mental irritability, and thus giving tone and courage. These are found to be better derived from a proportionate allowance of grain or corn, than any other mode of feeding at present known. It remains only to add, that although experience has fully proved this, in all cases where the exertions are extreme; yet it has also led to another evil, by introducing a plan of treating all horses of value alike. Thus most of the more valuable hacknies, the carriage horses of the wealthy, &c. are accustomed to be fed, not as though their exertions were moderate, but as though they were unceasing, to the great injury of themselves, and to the destruction of a vast quantity of valuable corn. To thousands of such horses, at least one third of their hay and corn might be advantageously abstracted.

Too great a quantity of food, injures not only the community but the horse also. The stomach becomes distended by over-feeding, and it then becomes weak and incapable of a healthy digestion; crib-biting, hide-bound, and pursiveness follow; or when the stomach does digest this undue quantity, it generates fulness, which shows itself in inflammations or foulness, appearing in the form of cracks and grease.

A horse in full work, of whatever kind, will require, according to his size, a peck of sound oats in twenty-four hours; and when the work is unremitting, as in post horses, even more may be required. Some post horses have an unlimited quantity given them; but this practice is always erroneous. If they eat more, it serves only to distend the stomach unduly, and also to require stronger digestive powers: if they blow on it they leave it, and it is wasted, or a more greedy one swallows it up without mastication; and both stomach, horse and master are thereby robbed. The oats should be of the very best, with a thin skin, and should weigh from thirty-eight to forty pounds the bushel. They should also be sweet and free from must, and not kiln-dried. When put into a wide manger and spread about, being first sprinkled with water, their benefit is increased. No horse will require more than eight or ten pounds of hay in twenty-four hours: from six to eight pounds are usually sufficient. When it can be conveniently done, the quantity of both hay and corn should be divided into four portions. The largest portion both of hay and corn should be given at night; the next in quantity in the morning; the other two portions at noon, and about four in the afternoon. This, however, must depend on the work of the horse, and other circumstances.

Watering of horses is an important part of their management, and many errors are committed relative to it. It is equally erroneous to debar them from it, as it is to allow them too much; and the former is much the most common evil. In summer, or when from great perspiration, the animal juices are wasted, it generates fevers, and wastes the strength and spirits. All horses prefer soft water, and as nature is unerring, there is no doubt but that it is the most wholesome. As some horses drink quicker than others, it is not a good custom to take riding horses to a pond, unless at night, when the quantity cannot harm them; or when not intended for early work the next morning, as hunting, &c.

The necessary quantity of water for a horse should be regulated by circumstances, as the weather, the work, &c. In common cases, a large horse requires rather more than the half of a large stable pailful twice in the day. At night a full pail should be allowed. Horses should never be galloped after drinking; it has destroyed thousands by gripes, inflammations; and broken wind. This custom also uses horses to expect they are to run away directly they are accidentally watered at any time. Others, expecting they are to be fatigued with a gallop, will avoid drinking at all. The most that should ever be done, is to suffer no horse to drink his fill at a river or pond; but having given him half what is necessary, walk him ten minutes, and then give him all that is required, and walk him again.

WINTER FOOD FOR COWS.

M. Chabert, the director of the Veterinary school at Alfort, had a number of cows which yielded twelve gallons of milk, every day, in his publication on the subject, he observes that cows fed in the winter upon dry substances, give less milk than those which are kept upon a green diet, and also that their milk loses much of its quality. He publishes the following recipe, by the use of which his cows afforded an equal quantity and quality of milk during the winter as during the summer:—"Take a bushel of potatoes, break them whilst raw, place them in a barrel standing up, putting in successively a layer of potatoes and a layer of bran, and a small quantity of yeast in the middle of the mass, which is to be left thus to ferment during the whole week, and when the vinous taste has pervaded the whole mixture, it is given to the cows, who eat it greedily."

The Cherokee Phœnix confirms the statement from the Georgia Athenian, describing a species of fly said to be very dangerous to animals. These flies have lately made their appearance in the Cherokee country. The Phœnix also uses the following language in reference to the ravages of this insect.—"We have heard of several animals that have been afflicted by these strange visitants. But only one case where a living person has been flyblown has come to our knowledge. This person was still living by the last accounts. It is said whenever these flies penetrate the flesh they cannot, without great exertion, be extricated."

HORTICULTURE.

KITCHEN GARDEN—FOR DECEMBER

The principal business to be done in the kitchen garden this month is, dunging and digging the ground, and laying it in ridges to enrich for sowing and planting after Christmas with some principal early and general crops for the ensuing spring and summer; and to collect and prepare dung for hot beds, and earthing and tying up plants to blanch

The only articles requisite to be sown are, peas and radishes on warm borders, and radishes and small sallading in hot beds.

Pay diligent attention to your asparagus hot beds, to keep up the heat of the beds by linings of hot dung, and to admit air in mild days till the plants come up, by opening the glasses two or three inches behind; but shut them close on nights, and cover glasses with mats.

Take up your red-rooted beet on a dry day, and let them be placed in sand, &c. under cover, for use in case of hard frost.

Hoe earth to the stems of your borecole and brocoli on a dry day. Also to cabbages of the autumn planting for winter.

In all moderate weather give air to your cauliflower plants in frames and hand-glasses, by taking off the frames occasionally, or always, when dry and mild: or if wet, kept on and tilted on the north side two or three inches, but shut close every night in frost, &c. Pick off all decayed leaves, and destroy slugs, if any infest the plants: and in rigorous frost cover the tops of the glasses, and round the sides, with straw litter.

If any cucumbers are in hot beds of the autumn sowing or planting, they should have the beds continued of a proper heat, supported by lining the sides with hot dung.

Whatever vacant ground you have, dig it in ridges, trench-ways, two spades aside, and one or two spades deep, &c. If dunged, dig in the dung but one spade, laying each trench in a rough ridge, to remain for future cropping, that it may improve by the weather, and be ready for levelling down expeditiously for the reception of seeds and plants.

Earth up plants, as celery and cardoons, in dry open weather, to blanch them; and continue to tie up the leaves of full grown endive plants every week, in dry open weather, to make them white and tender.

Hot beds should now be made for raising such early crops as may be required; making them of the best hot dung, a yard or three feet and a half for asparagus and cucumbers; and for other articles, two feet or two and a half, all of which must be defended with frames and glasses, and earthed with rich dry mould, six or eight inches thick.

Give full air, in all moderate weather, to lettuces in frames, taking off the glasses every dry mild day, keeping them on when much rain, and tilted behind. Keep them close covered every night, and in severe weather, and in very rigorous frosts cover them also with straw litter. Pick off all decayed leaves from the plants, and destroy the slugs that annoy them at this season.

Plant some strong plants of coss and cabbage lettuce, from frames or borders, into a hot bed under shallow frames, for the plants to be near the glasses, keeping the glasses on constantly, and give them air every mild day. By this treatment they will cabbage early.

It is natural for frosty weather to prevail at this time, and in which some particular business requires attention, such as when the ground is frozen hard, to wheel in rotten dung for manure, and fresh horse stable dung for hot beds; also proper earths and rotten dung for composts; and in severe frosty weather to give good attention to all tender plants, in frames, glasses, borders, &c., as cauliflowers, lettuce and cabbages, seeing they are securely protected by a proper covering of straw or mats during the rigor of the frost.

To Promote the Germination of Certain Seeds.

Mr. Skinner, *Dayton, Nov. 21th*, 1828.

A correspondent in one of the late Nos. of the Farmer inquires, what is the best method of propagating certain forest trees, named in his communication. With regard to the ready vegetation of seeds I will mention my experience as to two of the kinds enumerated, *Gleditsia* and *Robinia*. Honey locust and black locust. About the time of planting Indian corn or a little earlier if the weather and ground permit, the seeds may be planted.

Twelve or twenty-four hours before planting, place the seeds in a tub or other suitable vessel, and pour upon them a quantity of *boiling water* sufficient to cover them, and let them stand in it until ready to plant. This preparation of certain kinds of seeds is probably known to many persons, but as it has not, so far as I know, been frequently noticed in print, perhaps it may be proper to give it a place in your excellent paper.

I have tried it with the two above mentioned seeds with the best success, and I believe my father generally practises the same method with Indian corn, which by that means germinates much sooner and of course escapes accidents. I have no doubt that many hard seeds which are difficult in germinating would be essentially assisted by the above process. If this is all well enough known already, omit it. The seeds of white mulberry, I have steeped in *hot*, but not boiling water, with success.

I was so unfortunate as to lose the No. of the Farmer in which the article on shoeing horses is commenced, I think it is 29. I lent it to a stage proprietor, and while in his house it was borne off by some person.

If you can conveniently supply the deficiency I shall take it as a favour. The stage proprietor above mentioned has been so much pleased with that and some other articles in the Farmer, that he says he will become a subscriber.

Would not a good article on the means of facilitating the ready germination of seeds be very useful. Many we know are slow and uncertain to germinate readily, the crataeguses for instance, and a years preparation is rather tedious, troublesome and discouraging to those who would cultivate hedges, &c.

Frost and boiling water are powerful agents in this matter: but who except a few gardeners and nursery-men, know exactly, to which of these, (or other agents,) to expose their seeds, or what kinds of seeds will be aided in their germination by them?

Has boiling water been tried upon wheat and other grains, beans, pease, &c. &c.

Respectfully yours,
JOB HAINES.

MEXICAN SQUASHES.

J. S. Skinner, Esq. *November* 24, 1828.

Sir,—You gave to me last spring, a few seed of the *Mexican*, or *South American* squash, from which I raised a few, and now take pleasure in sending you in return the seed of a full grown one, to distribute among your friends. They attain a large size and are a very fine vegetable.

Respectfully, your obed't serv't,
SOLOMON ETTING.

Peas soaked one or two hours in water, blood warm, before planting, will come up sooner, and the bugs which are frequently in them will thereby be destroyed.

POMEGRANATES,

Large and perfect—produce of Accomack County in Virginia.

Dear Sir, *Accomack, Oct.* 28, 1828.

Mrs. Bayly sends to Mr. Skinner a small bag of pomegranates, they are much bruised by bringing up from her garden in Northampton county. I do not know whether this fruit is a stranger to you, and therefore it is sent. I believe there are no other trees of this fruit on the eastern shore of Virginia, but those in Mrs. Bayly's garden.

Respectfully your friend,
THO. M. BAYLY.

J. S. Skinner, Esq.

RURAL ECONOMY.

Comparative Cost and Advantages of Free and Slave Labour.

Mr. Skinner, *November* 30, 1828.

I observe that the gentleman, whose communication to Captain Basil Hall is published in your 35th No. says, that in North Carolina the value of a male slave, in his prime, is about $350; and that of a woman, $250: that the average annual wages of such a prime male slave, if hired out by his master, are $33 33; and that he can be well and plentifully fed for $25, and clothed for $15. Thus the whole of his annual expense would be $73 33. And if both man and woman were owned by the employer, the interest of the capital or cost, of the two, at six per cent. would be little more than the sum stated above, as the hire of the man alone.

In the part of Pennsylvania where I live, the wages of a white labourer on the farm, are from $100 to 120 per annum, and his food is estimated to cost, on the farm, about a dollar a week, or fifty-two dollars a year. One of my farm hands has just left me, because I would not raise his wages from $120 to $144 per annum. Fifty-two dollars for food, added to one hundred and twenty for wages, make $172; a great difference between the cost of labour of a white man and a black; especially if the amount of labour performed by the two be equal; and the gentleman to whose correspondence I allude, gives the preference to that of the black.

Captain Hall's correspondent says, that black boys are, or were, usually *bought by weight!* This, to my northern ears, sounds very odly.

I wish some of the manufacturers of the eastern states, would send you an estimate of the cost of the labour employed by them, of both adults and children. In those states, the labourer insists on being as well fed and clothed as his employer, and he obtains wages accordingly: but the adult male slave of North Carolina can be fed for $25, and clothed for $15. And the annual interest, at six per cent, of the estimated value of two, a man and woman, in their prime, is but $36.

It would be interesting to obtain from some competent persons, an estimate of the expense of labour in the different states. I think the result would be, to show the manufacturers of the eastern states, that it would be greatly for their interest, to remove their machinery to the south, where they can get the human labour, necessary to aid that machinery, at a small part of the expense which they are now obliged to pay for it.

Why can England sell the produce of her factories lower than the same kind of articles can be afforded for in the eastern states, but because the English labourer employed in the factory, is satisfied with a much less price than is demanded by the American labourer?

It is a folly to pretend that the tariff on woollen goods enriches the owners of the factories, in the eastern states. Nearly all the benefits which are derived from it, passes through their hands, as it appears to me, to pay and support the persons employed by them, in such style as they have been accustomed to live in. If a benefit to any one, it is particularly so to the labouring part of the community, who, if their wages in the factories are reduced below what they choose to receive, can readily turn themselves to some other employment.

But the southern states have opportunities of supplying labour, on terms which Great Britain herself cannot pretend to. Can a labourer in England, where food is dear, and where the coldness of the climate obliges him to be well clad, be fed and clothed for the sum which, according to Mr. Jones, will feed and clothe a North Carolina slave?

Almost every thing in the factory requiring skill and talents, *is performed by the machinery*. The human labour is little more than picking up a thing in one place, and putting it down in another; and it can be done as well by a black, as by a white person.

Why should cotton be sent from North Carolina to England, to be manufactured into cloth, and that cloth, after paying the cost of transporting it, the merchants' profits, and the profits and wages of the English manufacturers, be brought back, to be consumed in North Carolina; if, as I think, the same article can be made in the state, where the raw material is raised, at a less sum than it can be done for in England, even after the expense of transportation is paid, and the raw material deposited in an English warehouse?

Instead of quarrelling with the "American system" and the tariff, it seems to me, that the interest of the southern states is to take advantage of the benefits which they are supposed to offer to American manufacturers; and by introducing machinery, and employing human labour to assist it, at the low rate at which, according to Mr. Jones, it can be there obtained, those states may undersell the manufacturers of Great Britain, as much as the latter can, at present, undersell those of the eastern states

A competition on this subject between the different states, would benefit our common country, and be a laudable strife: a very different one from that which results from the declamation of virulent and factious politicians. R.

BLIND STAGGERS.

The following article comes from a respectable source, and is entitled to consideration, particularly where the distemper it is designed to remedy, prevails. [*N. Y. Ev. Post.*

"This disease appears to be a compression upon the brain, caused by a collection of wind and matter in the forehead. The writer witnessed a cure effected in the following manner: A hole was bored with a nail gimblet through the skull, on the curl of hair central between the eyes. In various instances he has heard of its being applied with uniform success. This remedy was discovered by an attempt to kill, and thus relieve a horse from the distress of this disease. His skull was fractured by the stroke of an axe. The morning following the horse was found feeding apparently well. The remedy may be applied by any person, as the horse very soon becomes helpless after the attack, and immediate relief is afforded by letting out the matter, &c.

"Those who are too timid to try the above remedy, may resort to one less severe, and as the writer has understood from a credible source, equally successful. Make a vertical incision in the skin between the eyes; separate it from the skull, so as to make a sufficient cavity to contain a gill of salt. A cure very soon will be effected.

A Friend to a Valuable Animal."

INTERNAL IMPROVEMENT.

UNION CANAL COMPANY.

Annual Report of the President and Managers of the Union Canal Company of Pennsylvania, to the Stockholders—November 18, 1828.

The period having arrived when the Board of managers of the Union Canal Company are required to make an annual report, they feel a high gratification in being able to state, that the general result of the first year's experience, has been such as to give an increased confidence in the practical utility of the Union Canal. It is destined to be not only the great connecting link between the Susquehanna and the Schuylkill, but it will realize the most sanguine expectations, both as it regards its influence upon the trade of the city, and the prosperity of the interior, as well as its profitableness to the individual stockholders.

By a reference to the last annual report, it will be seen, that the board were then engaged in planking the summit to the extent of six miles. In the progress of this arduous operation, 1,712,638 feet of boards and plank, and 232,000 running feet of timber were used. It was commenced on the 6th of August, and was completed on the 20th of December, making a period of four months and fourteen days. On the 28th of December, a cargo of 20 tons of Susquehanna coal passed through the entire canal, to the port opposite Reading. The rapid and effectual manner with which the planking was executed, the board ascribe to the talents and persevering industry of William Lehman, the resident engineer. With the opening of the spring, the canal was ready for use, and continued in operation, with a few short interruptions, until late in August, when an unusual drought, together with the great consumption of water which invariably attends the first year's trial of all new canals, interrupted the navigation for about a month, when it was restored for a few days, and again interrupted, from the same causes, for another month.

The canal is now again in full operation, and no doubt is entertained of its continuing so, until the period arrives when it will be proper to draw the water from the summit, for the purpose of making some additions to this part of the work.

The resources which are within reach, and which the board rely upon to prevent the future interruption of the navigation, are—

1. The formation of a new reservoir, of vast capacity, in the bed of the Swatara. This work is now under contract, and while it will be a reservation of water, which can be raised to the summit in a dry season, will, at the same time, be an extension of the navigation to within four miles of extensive coal mines. It will be constructed in the manner recommended and described by Canvass White, Esq.

2. Sheathing and raising the sides of the summit, so as to give a perpendicular depth of five feet four inches, which will produce an extra quantity of 700 locks full upon the summit, where alone a scarcity is to be apprehended, and which may be used in times of drought, as the depth may be decreased from five feet four inches, to three feet four inches, without interrupting the navigation.

3. The formation of three new feeders on the eastern section, and raising Hammaker's dam three feet eight inches on the western section, which are now completed, and will furnish a sufficiency of water on those levels below the summit heretofore defective.

4. The stoppage of such leaks as could not be discovered without filling the canal, and which could not heretofore be stopped without interrupting the trade.

In addition to the expedients above enumerated, the board rely upon a great saving of water hereafter, from the experience which has been acquired by the lock tenders, in passing the boats through the locks.

Among the interesting results of the first year's experience, the board will enumerate the following:

1. Upwards of 18,000 tons have passed through the canal since the last spring, although the boats at the commencement were only seventeen in number, and the outlet locks on the Susquehanna were not finished, which occasioned a short portage throughout the entire season, between the river and the canal.

2. In consequence of the demonstrations of the trade which seeks the canal, about one hundred and fifty boats have been built by private enterprise, and are ready for the spring business, and the outlet locks on the Susquehanna are now finished.

3. Although the obstacle of a portage at the west end of the canal was encountered, and but few boats were ready in the brisk part of the season, and a large portion of trade had ascended the Susquehanna before the canal was opened, yet the tolls actually received, amount to upwards of 15,000 dollars, and in addition about 11,000 dollars have been paid by the Union Canal boats to the Schuylkill Navigation Company, making a total of 26,000 dollars, derived from this means of intercourse with the Susquehanna.

4. The doubts entertained by some persons, whether an adequate supply of water for the summit can be raised by a mechanical power, have been put to rest, and a full demonstration made that the locks which appear small to the eye, can pass with the greatest facility boats of 25 tons.

In addition to the beneficial results above enumerated, the board will remark, that the opening of a new market by means of the Union Canal, to a portion of the inhabitants of the interior, has enabled them to receive their plaister, and other articles, at a cheaper rate, has given them better prices for all their productions, and has convinced them that Philadelphia can best supply their wants, and is, at the same time, the best purchaser of their commodities.

A statement of the articles which have passed through the canal since April last, is annexed to this report.

The treasurer's account, showing the sum of 11,942 dollars 67 cents, to be the balance of cash in his hands on the 1st instant, is herewith transmitted.

In the progress of the work, during the two last years, the board found it necessary to make temporary loans, from individuals and institutions, to liquidate which, they advertised for a further loan of 300,000 dollars in July last, which was subscribed for at a premium of four per cent.

Since the last report, damages to the extent of 6603 dollars 87 cents have been paid.

In conclusion, the Board will remark, that it is confidently believed that the State Canal, which is an extension of the Union Canal, and a source of pride to all, will be opened in the course of next summer, from Lewistown on the Joniata, and from Northumberland, at the confluence of the west and north branches of the Susquehanna. These are but parts of the glorious works of Pennsylvania; but these parts alone, without further aid, will increase the tolls of the stockholders of the Union Canal and the Schuylkill Navigation Company, will augment the trade and wealth of Philadelphia, and will develop the riches of a large portion of our beautiful country. All of which is respectfully submitted.

By order of the Board of Managers,

SAMUEL MIFFLIN,
President.

Philadelphia, Nov. 18, 1828.

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The whole amount of tonnage which passed this Canal, from the 17th of March, 1828, to the 1st of November, was 18,124 tons—as follows:

tons.	*cwt.*	
4,204	4	Fish, salt and merchandise.
4,167	17	Lumber.
395	1	Shingles and staves.
3,511	13	Gypsum.
354	4	Iron.
3,619	17	Clover-seed, bricks, leather, cement, butter, lard, limestone, flaxseed, soap and nuts.
1,625	19	Flour, wheat, rye and whiskey.
245	5	Coal.
18,124	00.	

Upwards of 762 tons have passed since November 1.

LADIES' DEPARTMENT.

(From the London "Forget-Me-Not," for 1829.)

LIGHTS AND SHADES.

The gloomiest day hath gleams of light;
  The darkest wave hath bright foam near it;
And twinkles through the cloudiest night
  Some solitary star to cheer it.

The gloomiest soul is not *all* gloom;
  The saddest heart is not *all* sadness:
And sweetly o'er the darkest doom
  There shines some lingering beam of gladness.

Despair is never *quite* despair;
  Nor life, nor death, the future closes;
And round the shadowy brow of Care,
  Will Hope and Fancy twine their roses.

F. H.

To the Altar of St. George's Church, Hanover square.

By James Bird.

Hail to thee, altar! thou hast long
  Been greeted by the voice of fame:
Oh, worthy of the poet's song!
  Witness of honour and of shame!
Thou spot, where beauty's flower is plunder'd,
Where hands are join'd, tho' hearts be sunder'd!

Oh, couldst thou speak, thy tale would bear
  A record and a mournful token
Of vows extorted by despair,
  Of blighted hopes and young hearts broken!
A blotted page that one must be
Whereon is traced thy history!

From thee hath many a trembling bride
  Turn'd with cold heart and burning brain,
The victim to a parent's pride—
  A bartered thing, a wretch for gain;
A fetter'd slave, all meanly sold
For that prime curse of curses, gold!

The proud, the rich, the mean, the high,
  Have knelt before thee!—Oft the rake
Hath there pronounced the ready lie,
  Deceitful as the Eden snake;
While his soft traitor lips replied
To queries which his heart denied!

Yet there *are* hearts that well may date
  The era of their joy from thee,
The birth place of the brightest fate
  That wedded life and love may be!
Hearts that have bless'd, that bless thee now,
In memory of their plighted vow.

How long, how fondly memory dwells
  On moments past that led to bliss!
Not time, which breaks all other spells,
  E'er broke the heavenly charm of this,
Which falls upon the heart like dew
That decks the faded flower anew.

SPORTING OLIO.

MODERN FALCONRY.

Duke of St. Alban's grand day of Falconry.

The Duke of St. Alban's, Hereditary Grand Falconer of England, gave a grand day of Falconry at Redbourne, on Wednesday last. Among the party who were invited to partake of the entertainment were the Mayor, Alderman, Town Clerk, Sheriffs, and Coroners of the county of Lincoln, the neighbouring gentry; and the tenants of his Grace. At the summit of the old arch at the Lodge, a green flag was hoisted, bearing the inscription of "St. Albans," surmounted by the arms and coronet. On the east of the mansion, and on the left of the road leading to the stables and out houses, were placed the feathered vassals of the Noble Duke, consisting of eight fine falcons they were each chained to a section of a cone of wood, about fifteen inches in height, and ten inches in diameter at the base. They were unhooded, but belled, and mostly sat at the top of their posts. Six of these were taken for the sports of the day, the others being left to do garrison duty.

About 100 of the Duke's tenants assembled on horseback in front of the hall, headed by the Steward, and bearing green favours (the hunter's immemorial colour;) the Hereditary Grand Falconer himself appeared dressed in the official costume of his post, consisting of green jacket, golden girdle, and gauntlets magnificently trimmed; Spanish hat turned up before, with a large white feather, buskins, and gold spurs. His Grace was mounted on a fine chesnut hunter, sat firm in his seat, and rode with the grace of an accomplished horseman. The Duchess, the Ladies Beauclerk, and other ladies, came on the ground with open carriages and four. They were splendidly dressed in Lincoln green and scarlet shawls. The company having proceeded to the ground, the falconry commenced.

1st. *Flight*—A dog having pointed, a hawk was unhooded and loosed; it rose with all the grace of freedom into its native element, wheeling over the heads of the party as though surveying the operations; sweeping to the right and to the left: now rising into mid-air in the distance, and now attentive to the hawker's call, gradually contracting its range of flight, and narrowing its circles; descending suddenly to the surface of the earth, and then rising again with equal abruptness. The partridge was flushed, and flew with the wind, towards the company; the hawk marked it with apparent unconcern, and, as though little disposed to take the same direction, yet, without exactly pursuing any track, he gradually neared it to within a certain distance, when he suddenly crossed on the bird's line of flight, and, seizing it at a height of 30 or 40 yards, absolutely bore it in his beak, bleeding and screaming, over the heads of the company, and carrying it down into the belt of a plantation adjoining the road. The numerous company (400, perhaps, in number) were equally astonished and delighted with the singularity and the effect of such a bold and novel action. The hawker brought the bird, which was quite dead, to the carriage of the Duchess, with the hawk on his hand, pecking the bleeding head with its powerful bill. It was ascertained to be the "favourite hawk."

2d *Flight*—As soon as the hawk was loosed, the wind carried it with great violence to the east; and though the hawker exerted his utmost endeavours, the sound of his call did not appear to reach the bird, which kept wheeling in large circles, and making for the east and north-east alternately. At length it crossed the road at a distance, and flew off almost in a tangent for the woods to the left of the company. The Duke galloped after it with some "drawers" or lures, attached to his girdle; and cleared several fences in the boldest style; he was followed by a number of other horsemen; and though they came up with it again, it changed its course, and got off out of all chance of being taken. A considerable time was spent in the pursuit, which was at length given up. From the bells attached to its legs (on which the Duke's name is engraved) it will be readily detected, and recognized as the serf of the Grand Falconer.

3d *Flight*—Though it was evident, from the state of the wind, that there was great danger of losing the hawks by pursuing in the sport, his Grace ordered a third hawk to be tried. A bird was flushed, on which it darted almost immediately, and killed in fine style; a second bird arose, and made directly across the large field for the company. The hawk was at a considerable distance, but bore obliquely on the same line; there was the fullest conviction that the bird would escape; when about half across the field, the hawk being at a height of twenty yards above the partridge, flew rapidly, as though passing over it, when it descended in a sudden swoop, curving down with great force, and striking the bird, which had lowered itself, with a violence that made it roll over several times, as it fell on the ground, about twenty yards from the company. Yet the point of contact was not visible to the eye; the motion, when it was struck, could not be traced, you only saw the effect. The hawk rose again, and crossed the road; but soon returned over the spot where the bird lay trembling; the partridge again rose, and was cheered by the company as it crossed just over their heads, and flew down a lane; the hawk followed it as though indolently, but soon made a second dart, striking the partridge with violence into the ditch; and thus killing both its birds in good style.

From the high state of the wind, it was not deemed prudent to hazard the hawks farther, as the sport altogether was only a *trial* of them. Such, however, was the sport, that it has afforded a most interesting specimen of the old game. But the hawk! it would puzzle all the philosophers of the world to account for its action by any of the known laws of motion, or the principles of mechanic power. You frequently see it elevate, depress, increase, or retard its flight at pleasure, without any visible action of the pinion, as though its motion were the result of volition, or of some electrical power, the operation of which is hidden from human scrutiny. Had the last bird not been struck the first time, it would have flown into the arms of the crowd—overcoming its dread of man in the presence of a superior and more terrible enemy. It was instinct of fear, from the moment it arose within the sight of the hawk, and flew cowering and fluttering, as though conscious of the destiny which it could not escape.

At the termination of the hawking, the company were entertained by the Duke and Duchess with a most sumptuous banquet, and a splendid exhibition of fire-works concluded the amusements.

MISCELLANEOUS.

TRADE OF THE SUSQUEHANNA.

Four years ago, a gentleman well qualified for the task, instituted inquiries for the purpose of ascertaining the extent of the *descending* trade of the Susquehanna. The following was the result of the investigation.

Union county sends annually to market a surplus of about 150,000 bushels of wheat; 2,800 barrels of whiskey; 6,000 bushels of clover seed; 200 tons of pork, and a small quantity of lumber.

Northumberland county spares a surplus of about 190,000 bushels of wheat; 2,000 barrels of whiskey; 180 tons of pork; 3,500 bushels of clover seed and a small amount of lumber.

Centre county spares for foreign consumption about 180,000 bushels of wheat; 6,000 bushels of clover seed; 1,000 barrels of whiskey. The whole quantity of iron manufactured is about 800 tons, from which, if we deduct the home consumption, the balance will be a surplus.

Lycoming county sends annually to foreign market about 100,000 bushels of wheat; 950 barrels of whiskey; 100 tons of pork, and a large quantity of lumber.

Clearfield county spares annually about 3,000 bushels of wheat; 100 tons of castings and pig iron; 2,000 tons of bituminous stone coal, and about 500,000 ft. of boards and square timber.

Columbia county exports annually about 100,000 bushels of wheat; 3,000 bushels of clover seed; 3,000 barrels of whiskey; 250 tons of pork, and a small amount of lumber.

Luzerne county spares a surplus annually of about 190,000 bushels of wheat; 1,000 barrels of pork; 500 barrels of whiskey, and 100,000 bushels of anthracite coal.

I have not been able to procure any account of the surplus produce of the counties of Bradford and Susquehanna; but the quantity of wheat and lumber is considerable.

Tioga county spares annually about 10,000 bushels of wheat: a considerable quantity of other kinds of grain; pork and whiskey, and a large amount of lumber. The manufacture of pot and pearl ash has been commenced and bids fair to be a source of profit.

That portion of the state of New York, bordering upon the Tioga river, spares annually a surplus of about 100,000 bushels of wheat, and a large quantity of lumber, &c.

I am not informed as to the surplus agricultural products of that part of New York, bounding the north east branch of the Susquehanna, but know it to be considerable, and the quantity of lumber immense. During the war, we received annually about 12,000 tons of plaister, but the quantity is now reduced to 3,000 and from 10 to 15,000 barrels of salt.

In the above account no notice is taken of the agricultural and other products of the counties of Perry, Mifflin and Huntingdon situate on the Juniata, nor of the counties of Cumberland, York, Dauphin, and Lancaster, a considerable portion of which may be said to be on the Susquehanna, and to form a part of, and bo deeply interested in the Susquehanna trade.

The above is exclusive of horses, cattle, sheep, hogs, butter, cheese, bees wax, maple sugar and a variety of agricultural products.

RECAPITULATION.

	Wheat.	*Clover-seed.*	*Whiskey. bls.*	*Pork.*
Union county,	150,000	6000	2800	200 T
Northumberland,	190,000	3500	2000	180
Centre,	180,000	5000		
Lycoming,	100,000		950	
Clearfield,	3,000			
Columbia,	100,000	3000	3000	250
Luzerne,	90,000		500	1000 bbl
Tioga,	10,000			
	823,000	18,500	10,350	

Clearfield county, in addition, furnishes 2000 tons of bituminous coal, and 100 tons of castings and pig iron.

Luzerne furnishes 100,000 bushels of Anthracite coal.

It is a fact well known along the river, that the coal mines of Luzerne county are worked much more extensively now, than they were four years ago. New iron works have been erected in Centre and Huntingdon counties. We think it fair to estimate the coal, pig metal and bar iron that descended the Susquehanna last spring as the double of what descended in the year 1824. The lumber trade has also very considerably increased, and there is no doubt that this has likewise been the case with flour, wheat, clover-seed, whiskey and pork.

Of the producers of flour, wheat, clover seed, and pork, and manufacturers of iron and whiskey, many are their own carriers, and rely upon the spring freshet for conveying the above articles to market, the return for which is indispensable to meet their engagements at home. There are a great number of extensive dealers in the above articles, who reside on the north and west branches, and to whom a conveyance of their produce to market in the spring is also indispensable to meet their engagements. The situation of those employed in getting out coal and preparing lumber for market is precisely similar.

Now, we are informed, that the Shamokin Dam cannot be passed but at imminent risk by arks and keel bottom boats, and can only be passed with the greatest difficulty by rafts. Our informant mentioned that some rafts of lumber, for the bridge at the mouth of the Juniata, passed through the sluice of the Samokin Dam a few days ago, but were so shattered by the roughness of the course, that they were obliged to *raft over*, that is, to take their rafts apart and put them together anew, before they proceeded any further with them. The sluice of the dam at the mouth of the Juniata is sufficiently rough, even for the descent of rafts, and experienced watermen say that loaded keel bottomed boats *cannot* ascend it—but must sink.

If our information should turn out to be correct, heavy losses must be sustained by the up river people next spring. [*Harr. Chronicle.*

A Worcester, Mass. paper communicates the remarkable fact, that a quantity of cherry plank and joists have been received in that town from Michigan or Ohio, brought from the head of Lake Erie by the New York Grand Canal, North River, and Long Island Sound up the Blackstone Canal. The distance is at least nine hundred miles, of which 400 is artificial navigation.

(From the Berkshire American.)

ECONOMY.

Wrong notions are very apt to be entertained of the meaning of *economy;* and this error consists principally in confounding it with *parsimony.* But there is, in truth, a wide difference in the meaning of the two words. Economy *saves*, but parsimony *pinches.* The former, by saving, increases the comfort of life, and fills the cup with blessings; the latter, by sparing, too frequently robs one of those enjoyments which the bounty of heaven has bestowed.

Economy is one of the most useful and practical of household virtues. Economical people can live well on a small income, while wasteful people will live poor on a large one. So much for good management. A. with an income of $500, will make both ends of the year meet, pay his taxes promptly, and have something to bestow in charity. B. with an income of $1000 is in debt at the end of the year, his goods are distrained for taxes, and he has not the consolation of having made the heart of the widow or the orphan glad by his bounties. The truth is, he has got rid of one thousand dollars, one half of which he has not enjoyed for the want of economy; it has neither benefited himself, his family, nor his suffering neighbours.

Economy is a virtue proper for both sexes; but it is particularly becoming and useful in the female. It is the province of few women to make money; but it is the part of many to save it. All who have the management of domestic affairs, belong to this latter class. The wife is not expected to go into the field, the workshop, or the counting house, to earn money, or bring in the products of the soil: but when these are procured, it is her duty, it is her interest, so to manage as to derive from them the greatest possible benefit for herself, her family, and her friends.

In order to illustrate the subject the better, we will suppose Mrs. A. and Mrs. Ambersand to be each the mistress of a family. Mrs. A. makes the most of the means of livelihood and comfort placed at her disposal. Mrs. Ambersand, on the contrary, literally throws away the advantage allowed her by fortune for promoting the comfort of her household.

Mrs. A. turns every thing to the best account by the proper exercise of domestic economy. Every thing, whether in the kitchen or the parlour, the cellar or the wardrobe, is in perfect order. Every article of cookery is prepared in the best manner; and every dish, however simple and cheap, is savoury and inviting. And Mrs. A. though with a very moderate income, has from one end of the year to the other, enough and to spare; and there is not a day when she is ashamed to invite a guest to her table, or needs an apology for its meagre contents or ill directed cookery.

On the contrary, Mrs. Ambersand, though lavish in all that concerns her household, has nothing in order. Of the many and expensive dishes on the table, nothing is inviting or even palatable. The meat, by an incipient taint, offends equally the taste and the smell, or it is spoiled by unskilful cookery, and is only *mete* for the dogs, to whom it is consigned; her bread is soured in the making, and after some vain attempts at eating it by the family and guests, it is thrown to the swine; the butter is lavishly employed in various processes of cookery, but so employed as to add nothing to the inviting qualities of the dish, and is therefore so much expense entirely thrown away. The tea is brought upon the table strongly impregnated with smoke, and must be sweetened with apologies about the carelessness of Betty, the badness of the firewood, &c. or it must be emptied out, and the guests compelled to suspend the operations of the tea table until more water can be boiled, and a more inviting beverage be prepared.

In every thing else there is the same wide difference between Mrs. A. and Mrs. Ambersand.—Mrs. A. by keeping the clothing of her family properly mended, adds at least one half to the durability of the articles. She is never seen with a hole in her stockings, nor are her husband and children observed from day to day carrying about the same gaping rents in their coats or pantaloons. In short, she understands the value of the old adage:

> "A stitch in time saves nine,"

and takes care that every thing is mended before the wear and tear has become so enormous as to render any attempts at amendment null and void.

Now look at the management of Mrs. Ambersand. A little hole appears in her husband's stocking, so small as scarcely to allow the extrusion of his toe nail, and two minutes darning would effectually close it. But Mrs. Ambersand has "other fish to fry," and the hole is put over for the week. It enlarges every day, and in a short time the husband's great toe is fully protruded, like the head of a tortoise sticking out of his shell; still other business must be attended to, and the motion to take up the stocking is laid on the table for another week. By that time the hole is enlarged so much that all the toes are seen peeping through; for want of a warm covering they are nipped by the frost, mortification ensues, one or two joints are lost, a surgeon's bill is incurred, the man is laid up for three months, is lamed for life, and the stocking is finally thrown under the table. So much for the want of two minutes' timely darning.

THE FARMER.

Baltimore, Friday, December 5, 1828.

☞ We intimated briefly, in a recent number of the Farmer a wish to be favoured, by the Treasurer or other publick officer of each of the states, with a copy of the annual Report which is usually made and published; containing an expose of the finances of the state.—

Not then having room to explain our object it may now be best done, by inserting an extract from a letter received from that distinguished Traveller Capt. Basil Hall, of the British Navy. In a letter of subsequent date from London, the wish is repeated, and in cases of this sort where no legal obligation exists to furnish the information, but where the appeal must be made to the courtesy of those who have the best means of supplying it, we have so far found such appeals not the least effectual; for there is fortunately amongst liberal authorities and men of sense every where a spirit of urbanity which leads them to open wide the sources of intelligence and to impart freely to candid inquirers whatever they may deem necessary to a better understanding and exposition of the subjects to which they devote themselves in the course of their travels.

We doubt not but the present inquiry will be met in the spirit we have described, and that we shall soon be enabled to give the items sought for by Capt. Hall.—The object would be the more certainly attained if this request were kindly repeated by Editors residing at the respective seats of the State Governments.

"My Dear Sir, *At Sea, 12th July,* 1828.

"You were good enough to say, when I had the pleasure of seeing you at Baltimore, that you would be glad to aid and assist me in the collection of information relating to America; and I now take advantage of your kind offer, to make a request which I trust will not cost you much extra trouble to comply with.

"From the wide circulation of your journal, you probably exchange papers with all the states and territories in the Union; and if so, I hope you may have it in your power to pick out of these, one paper from the seat of government of *each* state and territory, containing an account of the *revenue* and *expenditure* of the present year. There is, I know, an annual report made to the several legislatures, by the auditor-general, or some other public officer, of the finances of each of the states; and this I believe, is invariably republished in the papers. I should be better pleased, certainly, to obtain possession of the actual official papers, such as the members themselves receive; but I suspect that this cannot be easily procured without writing to some member of every one of the legislatures, which might be troublesome, and after all not much more satisfactory. At all events, you will oblige me very essentially by sending me these reports as fast as you collect them; I mean without waiting for the whole series.

"I have obtained the official reports of the finances of the following states for 1827—and if, by any means, you can scrape together for me those relating to the remaining states, also for 1827, you will do me a most kind service. Those I have, are for Massachusetts, New York, Pennsylvania, Virginia, South Carolina, and Louisiana. The most satisfactory, because the most detailed of these statements, is that for Pennsylvania; it is in a pamphlet form, and is published at Harrisburgh, by Samuel C. Stambauch. If there be any similar publications elsewhere, I should like to possess them. But I leave this to your good discretion, as you now know what I am in quest of.

"You were considerate enough during my journey in the United States, to favour me with a copy of your journal; and I assure you that I felt the attention very much. Now, however, that these perigrinations are over, you must allow me to become a regular subscriber, and I have accordingly directed Messrs. Thomas Walker & Sons to pay to your agent at New York whatever may be right, from the 1st of July, the day on which I left America; and I will thank you to send the papers to them weekly. They have my directions, also, to answer any call you may find occasion to make for postage or other charges which may be caused by the above commission respecting the financial statements of the different states.

"Have you never received any replies to the agricultural queries which you did me the kindness to print?

"Can I be of any use to you in England? If so, pray command my best services. I presume you get all the agricultural periodicals; but, still, there may be some inquiries which you may wish to make, and I can safely promise you that, although I am ignorant of such matters myself, I can always obtain for you the opinions of men thoroughly versed in them."

☞ By the following (from the N. England Farmer,) we are glad to find that an opportunity is presented for rearing mules, of the finest quality, in that part of our state where the lands are light, and where, for all farming purposes, the mule is so much more economical and eligible, in every respect, than the horse. But in the prejudice against the mule, there seems to be a sort of fatuity that defies the influence of time, of reason, and of common sense.

"We had an opportunity of seeing, in the month of September last, a very large and handsome Jack, which was imported into this place direct from Malta, and which we understand has since been sent to Caroline county, eastern shore of Maryland, where he is to stand the next season; when the farmers in that and the neighbouring counties who wish to substitute the mule for the horse to work on their farms, will have an opportunity of sending their mares to him."

Presidential Election.

The Electoral Colleges met in their several states, on Wednesday last, and gave their votes for a President and Vice President of the United States. It is believed that the following will be the votes of the electoral colleges:—

For Gen. Jackson.—Maine 1, New-York 20, Pennsylvania 28, Maryland 5, Virginia 24, North Carolina 15, S. Carolina 11, Georgia 9, Alabama, 5, Tennessee 11, Mississippi 3, Ohio 16, Kentucky 14, Illinois 3, Indiana 5, Louis'a 5, Misso. 3—Total 178.

For Mr. Adams.—Maine 7, New-Hampshire 8, Massachusetts 15, Rhode Island 5, Connecticut 8, Vermont 7, New York 16, New Jersey 8, Delaware 3, Maryland 6.—Total 83.

For Gen. Jackson, - - - - - 178
Mr. Adams, - - - - - 83

Majority for Gen. Jackson, 95

☞ Since our last, intelligence has been received from Liverpool to the 25th, from London to the 23d, and from France to the 24th October. From the latest papers we have extracted those items which we deemed most interesting to our readers

Brazil and Buenos Ayres—Ratification of the Treaty of Peace.

By the arrival at this port of the schooner Buglehorn, Captain Thompson, in forty-one days from Rio Janeiro, we have received the gratifying and important intelligence of the ratification of the treaty of peace between Brazil and Buenos Ayres by the government of the latter country. The news of this event, so important to the commerce of this country, was received at Rio from Montevideo on the 15th October, by the United States' sloop of war Boston. Eighteen of the crew of the Boston came home in the Buglehorn.

Flour at Rio, October 20, 17 dollars.

(From the New York American of Dec. 1.)

Latest News from Europe.

The accounts received by the ship Roman, leave the question of Russian and Torkish hostilities as unsatisfactory as before. Certain it is that on the 1st of October, *Varna* had not fallen, and equally certain it is, that the Torkish corps, amounting, according to the Russian bulletin to 30,000 men, had left Choumla and marched to the relief of Varna—under the walls of which, almost, it had, after hard fighting, successfully entrenched itself. The detachment of so large a force would seem to prove that the Russian force investing or beleaguering Choumla, had, as has been alleged, either finally retreated—or, at any rate, fallen back for a time. The Grand Signior had left Constantinople preceded by the standard of Mahomet, which consists, according to Dr. Walsh, of a pair of breeches worn by the prophet. The rumour that the Porte had acceded to the mediation of England and France for the pacification of Greece, may, we would hope, be received as quite probable.

(Extract from a letter dated Liverpool, Oct. 25, 1828.)

"The sales of cotton being so extensive last week, has left a present supply in the hands of the trade; and the demand this week has been limited, say 9780 bags, 1120 of which are Berbice and Demerara Cotton sold by auction yesterday. Prices have not given way, although it is difficult to obtain the highest rates of last week. There is a good demand for goods at Manchester. Our grain market has experienced some further speculation since Tuesday, and prices of wheat, have advanced nearly one shilling per 70 lbs. If the deficiency in the crop be correct, these prices will be established, and we may expect a better demand for all articles of produce."

Liverpool Market.

We are indebted to a commercial house for the following circular:

Sales of American Produce from 18th to 25th Oct. 1828: Cotton, total sales, 9565 bags, viz: Sea Island 490 bags, at 14 a 18d; do. stained, 25 do. at 6½ a 9½d; Upland, 3430 do. at 6½ a 7¼; Orleans, 1452 do. at 6½ a 8; Alabama, 832 do. at 6 1-8 a 6¼—Total import, 5654 bags.

Ashes.—Montreal Pot, 200 bbls. at 30s 6d a 31s per cwt.; do. Pearl, 80 bbls. at 30s 6d a 31s; United States' Pot, none; Pearl, do.

The corn market has again changed its character. At the public market on the 21st inst., Wheat was sold at 1s 6d per 70 lbs. decline from the highest value of this month; but it has subsequently advanced, attributable in a great measure to speculative operations, quite 1s per 70 lbs., and is now steady at that advance.

We give in this day's quotations for foreign Wheat, in bond, 9s a 9s 6d; Canada free Wheat, 11 a 11s 6d per 70 lbs; Canada Flour, 48s, and free sour Flour, 46s a 47s per bbl; Indian Corn, 38s a 40s per 480 lbs, and American Flour, in bond, nominal, at 35 a 36s per bbl. The general average for duty last week was 75s 8d per quarter. It appears still very probable that bonded Corn will be brought into consumption at a small comparative duty.

Oct. 23.—Ashes, U. States, 1st Pot 30 a 31s; Montreal 30 a 31s; U. States Pearl 30s 6d a 31; Montreal do 30 a 31.

Bark, Quercitron per cwt. 11 a 13s 6d; Tar, American, per bbl. 11s a 11s 6d; Turpentine cwt. 10s 6d a 11s 8d; Rosin per cwt. 6 a 6 8d; Tobacco, James river leaf 2d a 5; stemmed 2 a 4½; Kentucky and Georgia leaf 2 a 3½; Wax, bees, American, per cwt. *l*9 10. Rice per cwt. (in bond) 17 a 20.

Cotton.—Bowed, Georgia, per lb. 6 1-8 a 7¼; N. Orleans 6 1-8 a 9; Sea Island, good and fine 18½ a 1s 8d; ordinary and middling 8d a 1s. The sales of the week are 11,000 bags; the demand has slackened, but prices are steady at the rates of last week: the import is 279 bales of American cotton.

Oct. 24.—There has been less doing in Cotton this week. The sales amount to about 9800 bags. Prices of Boweds, Alabama, &c. 6d to 7 3-8 per lb.

Since Tuesday's corn market, wheat has been in demand, and has advanced about 9d per 70 lb. Oats are also higher.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,

No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 6.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rappahannock 2.75 *a* 3.50—Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $8.00 *a* 9.00—superfine Howard-st. 7.25 *a* 7.75; city mills, 7.00 *a* 7.25; Susquehanna, 7.00 *a* 7.25—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.50 *a* 1.60—best white wheat, 1.60 *a* 1.75—ord'y to good, 1.30 *a* 1.50--Corn, old, .45 *a* .50—new corn, .40 *a* .45—in ear, bbl. 2.00 *a* 2.25—Rye, bush. .50 *a* .55—Oats .30 *a* .32—Beans .75 *a* 1.25—Peas .45 *a* .55—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds 1st proof, .27—bbls. .28 *a* .29—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Pork, 4.50 *a* 5.50—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 4.50.

Marketing—Apples, per bush. .50 *a* .75; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .25; Turkies, each, .75 *a* 1 00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10, Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, 1.00. Pork, 4.00 *a* 4.50 per cwt.; prime Beef on the hoof. 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

STABLING AND GROOMING OF HORSES.

(*Continued from p. 299.*)

The stabling of horses is likewise a most important point in their management, the more so as being wholly a deviation from nature; hence, under the most judicious management, it is liable to produce some departure from health, and as sometimes managed, is most hurtful to it. Clothing, dressing or combing, and exercise, are also highly important.

Every stable should be large, cool, and airy. It is too common to suppose that warmth is so congenial to horses, that they cannot be kept too hot; but there is reason to suppose that many of the diseases of horses are attributable to the enervating effects of unnatural heat, and of an air breathed and re-breathed over again. Blaine says—Is it not alike repugnant to reason and experience, to expect to keep animals in health, that from stables heated to sixty degrees, and further protected by warm clothing, are first stripped, and then at once exposed to a temperature at the freezing point? If it be argued that habit and exercise render these less hurtful, it will be easy to answer that their original hardihood is lost by confinement and artificial treatment; and that neither does exercise always tend to obviate the effects of this sudden change: for our best carriage horses, and hackneys also, have often to wait hours in roads and streets the convenience of their owners, or the pleasure of the groom.

The heat of a stable should be regulated by a thermometer, and the heat shown by it should never exceed 50° of Fahrenheit in winter, or 62 or 63° in summer. To renew the air, the stable should be well ventilated; and which is best done by trunks or tubes passing from the ceiling through the roof.

A stable should not only be well ventilated, but it should be light also; and the windows should be so constructed as to admit light and air, without making a current of wind on the bodies of the horses. Darkened stables are very hurtful to the eyes; neither do they, as was formerly supposed at Newmarket, tend to the condition or rest of a horse.

A stable should have a close ceiling to keep the dust and dirt from the hay-loft from entering the horses' eyes. It is also necessary to prevent the ammoniacal gases from ascending and lodging in the hay. It is preferable that the hay loft be altogether removed from over the stable; and if a very high ceiling, even to the roof, were substituted, it would be for the benefit of the horses.

The form of the rack and manger should be attended to. Sloping racks are disadvantageous, as encouraging dust in the eyes. They should therefore be upright, and by no means so high as they usually are, by which the head and neck are put injuriously on the stretch. As a proof that this is unpleasant to horses, many of them first pull out all the hay, and then leisurely eat it. The manger should be wide at the bottom, and of a proper height: care should be taken that no splinters are present to endanger the lips, nose, and mouth.—The halter reins should, in good stables, be suffered to run within a groove within the manger post, to prevent their entangling the legs.

The stalls of a stable should be wide. Strains in the back, and sometimes even worse evils, are the consequence of the standings being too narrow.—Bails are objectionable, from the ease with which horses can kick over them; and also from the quickest feeder getting most food, when several horses stand together bailed.

The acclivity of the stalls is a matter of much dispute: when too much raised, as in dealers' stables, they put the back sinews on the stretch, and fatigue horses much. It is more natural that they should be even; or that a very slight slope only be allowed to carry off the urine. The best mode, however, of carrying off the urine, is by means of a small grating to each stall, communicating with a cess pool without doors, which should be closed up, that a current of air may not come through the grating. Such a contrivance will effectually carry off the water, and prevent the volatile alkali of the urine from impregnating the air around. For the same reasons the dung should be removed, if possible, wholly without the stable as soon as dropped; for the exhalations from that are also ammoniacal, and consequently hurtful. To this cause alone we may attribute many diseases; particularly the great tendency stabled horses have to become affected in the eyes. The pungency of this effluvia is familiar to every one on entering a close stable in the morning, and when the long-soiled litter is removed, it is absolutely unbearable.

The litter of horses should be kept dry and sweet, and should be often removed. When it is suffered to remain, under the notion of making better dung, the horses may be ruined; neither does the manure benefit as is supposed; for when it is removed to the dung pit, the close confinement does it more good than the open exposure in the stable, when it parts with its salts, on which its properties as manure partly depend.

Horses should not stand on litter during the day, although very generally suffered to do so. Litter is thought to save the shoes and even the feet, by preventing the uneven surface of the stable from hurting them: but it holds the urine; it tenders the feet, it heats them also, and is very apt to encourage swelling at the heels: as we know by removing it, when they immediately go down. A little litter may be strewed behind to obviate the effect of kicking, or the splashing of urine in mares.

The clothing of horses is apt to be carried to as erroneous an extent, as the heat of their stables. When horses go out in cold weather, and are intended to have merely a long walking exercise, then clothing is very proper: but it must be evident, that when taken clothed from a stable and exercised briskly so as to produce perspiration, it is erroneous; for not only are the clothes wetted and thus liable to give cold, but the horse is unfitted to go out afterwards with a saddle only. Saddle horses kept in condition stand clothed in a kersey sheet, and girted with a broad roller, with occasionally the addition of a quarter-piece; the breast-plate is sometimes put on when going out to exercise; the hood is used to race-horses only, except in case of sickness. All horses, except racers, are best without clothing in the summer season.

The grooming or dressing of horses is generally thus practised: having tied up the horse's head, take a curry comb, and curry him all over his body, to raise the dandriff or scurf, beginning first at his neck, holding the left cheek of the head-stall in your left hand, and curry him from the setting on of his head, all along his neck, to his shoulder, and so go all over his body to the buttock, down to his hocks; then change your hands, and curry him before on his breast, and laying your right arm over his back, join your right side to his left, and curry him all under his belly to his chest, and so all over very well, from the knees and shoulders upwards: after that, go to the far side, and do in like manner. Then take a dead horse's tail, or a dusting-cloth of cotton, and strike that dust away which the curry-comb has raised. Then take a round brush, made of bristles, and dress him all over, both head, body, and legs, to the very fetlocks, always cleansing the brush from that dust which it gathers, by rubbing it upon the curry-comb. After that take a hair cloth, and rub him again all over very hard, both to take away the loose hairs, and to help to lay his coat; then wash your hands in fair water, and rub him all over with wet hands, as well head as body; for that will cleanse away all those hairs and dust the hair cloth left. Lastly, take a clean cloth, and rub him all over till he be very dry, for that will make his coat smooth and clean. Then take another hair cloth, (for you should have two, one for his body and another for his legs,) and rub all his legs exceedingly well, from the knees and hocks downwards to his very hoof, picking and dressing them very carefully about the fetlocks from gravel and dust, which will lie in the bending of his joints.

The curry comb should not be too sharp, or, at least, not used in a rude and severe manner, so as to be an object of torture and dread, instead of delight and gratification to the horse. It is too often the fate of thin skinned horses to suffer much from the brutality of heavy-handed and ignorant fellows, who do not recollect that the unhappy animal is suffering, every time he writhes and attempts to escape from the comb or brush, the same tortures that they themselves experience when tickled on the soles of their feet.

The care of the legs and feet forms a most important branch of stable discipline. The legs must be kept perfectly dry, and so clean that not a speck of dirt be suffered to lodge in any crevice under the knee or fetlock, or around the coronet, and withal preserved cool and free from stiffness and inflammation. Dirt suffered to form a lodgment, or wet remaining upon the legs in cold weather, will fret the skin, and cause cracked heels, mallenders and sellenders, rat's-tails, crown-scab, and such a train of stable plagues, as may baffle the most vigorous efforts during a whole winter. From want of care, the best flat-legged horses, whatever may be their condition, will soon become greased. Much care should likewise be taken not to irritate and add to the inflammation of the legs, by harsh rubbing; and if they be moderately bandaged with linen or woollen, which every groom knows how to perform neatly, it will contribute to cleanliness and the general end. Some gallopers are apt to crack the skin of their heels in exercise: in that case, supple the skin occasionally with simple ointment, though, in general, warm water will be a sufficient preservative. Pains and soreness in the shins and shank bones are often the consequence of exercise over hard ground in very dry seasons, for which there is no better palliative than frequent warm emollient fomentations. It forms a part of the constant attention of a good horse keeper, to see that the feet of his horses be well cleansed beneath the shoe with the picker, from all small stones or gravel, at every return from abroad. The shoes must be examined, that their ends do not press into the crust, and that the nails be fast, and that the clinches do not rise to cut the horse. In these cases, instant application must be made to the farrier: horses ought by no means to remain in old shoes until the toe is worn away, or the webs become so thin that there is danger of their breaking, unless in case of brittle hoofs, when it is an object to shoe as seldom as possible. Upon the average, good shoes will wear near a month. Steeling the toes is, in general, an useful practice, but less necessary when the best iron is made use of. Where any tendency to dry hoofs exists, the feet should be stopped with equal parts of clay, cow dung and chamber ley every night, otherwise, twice or three times a week will be sufficient. A still better stopping is made by adding a little tar to the other matters. It is also prudent, when the hoofs have any tendency to hardness and contraction, to water the front part of the stall a little, and also occasionally, or constantly, to hang around the hoofs an apparatus, made by doubling a circle of woollen cloth over a tape, which should be tied around the fetlocks loosely: the two segments of the cloth will then fold around the hoof, and correspond to it in shape. This may be dipped in water, and will be found very convenient in keeping the feet moist and cool. Very brittle hoofs are greatly benefitted by brushing them over with a mixture of whale oil and tar. It is considered as beneficial, in general, to take off the shoes of a horse who is necessitated to stand long in the stable, and who does no work, and to substitute tips; the growth of the crust and the enlargement of the heels, being thereby promoted.

The care of the furniture and trappings is another part of the duty of a horse keeper. These are best kept in order by being instantly rubbed clean after use, and placed in a dry situation; by which method neither oil nor scouring paper is often found necessary. Great care should be taken to dry the pads of the saddles after journies, and never to put a hardened and damp saddle upon a horse's back. The same is also necessary with regard to the body clothes. The pads of the saddles ought to be kept perfectly soft, and free of dirt and sweat; and, after use, should be dried either in the sun or by the fire, and hung in a dry place: the clothes also should be washed much oftener than they generally are, and ever kept perfectly dry, and in a sweet state.

The exercising of horses is essentially necessary for their health, as it counteracts the effects of the artificial life we force on them. High feeding, heated stables, and unnatural clothing are, particularly the first, counteracted by proper exercise; and without it, horses become pursive, fat, heavy, and greased; for, when the secretions do not find themselves natural vents by perspiration, &c., they will find themselves artificial ones. Exercise keeps down the fat, and it also hardens and condenses the muscles by drawing their fibres nearer together; it likewise enlarges the muscles. Thus the appearance, as well as the feel, when we handle the flesh of a horse in condition by proper exercise, is totally different from those of one merely full of flesh by fat, &c. Exercise increases the wind by taking up the useless fat, and by accustoming the lungs to expand themselves.

The quantity of exercise necessary for a horse must be regulated by a variety of circumstances; as age, constitution, condition, and his ordinary work. A young horse requires more exercise than an old one, but it should be neither very long nor very fatiguing. Some colts are observed to come out of the breaker's hands with splints and spavins, owing to the severe exercise they have undergone. When horses are in general work, a little walking exercise in the morning in body cloths, if the condition be very high, or the weather be very cold, is all that is necessary: but, on days when their common work is not expected to occur, a full horse should be exercised twice a day, an hour at each time; or, if only once a day, then an hour and a half or two hours' exercise should be given; two-thirds of which ought to be passed in walking; the other should be passed in a moderate trot in the hackney, and divided into galloping and trotting in the hunter. The racer has his regular gallops at stated periods; but the exercise of each should always finish with a walk of sufficient length, to bring the horse in cool, both in person and temper.

ON EARLY OR RARE RIPE WHEAT.

Mr. Skinner: *Easton, Md. Nov. 29, 1828.*

Having given you in a former communication some statements in relation to the *Early Wheat*, and accounted for its being discarded about twenty-four years ago, I desire, as I have been principally instrumental in introducing it again into use, to put the agriculturists generally in possession of all the information that my attention to this wheat enables me to give.

I am exceedingly gratified that there is so much of it seeded this year, as my conviction has been annually strengthened for the last four years, that under the circumstances we are placed in regard to the wheat crop, the early wheat is the most productive and certain wheat crop we can grow. I again state as the result of further experience, and of information that may be relied on, that the early wheat may be seeded so late in the autumn as certainly to escape the autumn fly, and when so seeded that its early spring growth will cause it to escape the ravages of the fly in the spring—that notwithstanding its shorter head and shorter straw, and its generally less propensity to branch, its greater certainty to mature well, and its almost invariable excellence of grain, causes it to yield as many, (if not more) bushels to the acre as any other wheat—and that grain will generally be of greater weight per bushel.

The fact, I believe, will be obvious to all who will give their attention to the subject, that this wheat, in all vegetating seasons whilst it is in the ground, outgrows any other species of wheat under like circumstances. It progresses too fast for the fly in the spring, and maturing earlier by a fortnight than other kinds, it has all the advantage of ripening in a cooler season, and being reaped and secured a fortnight before the other kinds of wheat; it has the advantage too of being exempt all that time from the casualties that the wheat crop is subject to. Among agriculturists the remark is universal, viz. an early harvest is always a good one—all the reasoning that sustains this position applies with increased force to the early wheat.

A most intelligent gentleman of my neighbourhood informed me, that he seeded early wheat last year in the middle of December, and that the product per acre last harvest was equal to any he made on equally good ground, and the quality of the grain, if at all different, he thought rather superior to that from similar ground seeded in October.

The seeding of my own crop last year was completed in the month of October, except a lot of about ten acres, which was seeded the 18th November. I lost my whole crop of wheat this year by the hail storm of Whitsun-Monday, but the wheat on the ten acre lot seeded in November, was, whilst growing, equal to any wheat I had, and promised a crop of at least twenty bushels to the acre.

The rust for the last two years, has almost entirely destroyed the crop of all the other kinds of wheat seeded with us, such as our old favourite white wheat, the red chaff-bearded, the yellow-bearded, the New York flint, the Lawler wheat, &c. but in every instance that I have been able to learn of, where the early wheat escaped the hail storm, the abundance of the crop was fully correspondent to the land it grew on, and was of fine quality.

I have, since my last communication, heard of the early wheat having the rust—this was new to me—but, upon investigation, I was induced rather to believe that it was owing to bad growth from defective seed. Very thin wheat, every body knows, is subject to rust—but if any sparse wheat can escape the rust, I aver that the early wheat will be the sort most likely to escape it. I have seen no cause as yet to retract my assertion, that where there is a pretty good crop of early wheat upon the land, it will rarely, if ever, be affected by the rust. I never knew nor never heard of an instance. South of Maryland, it is said, the wheat crop is particularly liable to injury from rust. Where that is the case, I should consider the introduction of the early wheat the surest remedy.

I never pretended to say that the early wheat was exempt from all disaster. I could have had no knowledge that would justify so extravagant a recommendation. But I do repeat before the agricultural world, that from the experience of the four last years of my life, and from that of the period between the years 1799 and 1804, I consider the early wheat *more exempt* from all the disasters that I have known to befal the wheat crop for the last twenty-nine years, than any other species of wheat that has been grown on the Eastern shore of Maryland during that time.

There is a species of early bearded wheat I understand—of this I know nothing but by report. The early wheat I speak of has a smooth head and a short straw that cures unusually bright. It is a white wheat with a plump grain.

As the early wheat matures early, many persons have been led to believe that it therefore requires very early seeding. My own practice and experience, as well I believe as that of others, oppose this theory. This autumn I have seeded two thirds of my whole crop of the early wheat—for the past two years I only seeded one half of my whole crop of it. I have always begun with the white wheat or red chaff, and completed my seeding of these kinds, and then followed on with the early wheat; never beginning with any wheat before the first of October, and generally completing my whole seeding in that month. My impression is, that the early wheat on good ground, and put in when the ground is in good order, will certainly produce a good crop if seeded any time in November—nor should I doubt its success on such ground in such order if seeded any timo in December.

When the early wheat heads out, there are apt to appear a good many black or blasted heads, which vary in number according to the season, commonly most abundant after a wet spring. This has presented rather a terrifying prospect to the farmer, and caused a temporary dismay among those who did not expect it. This circumstance is preferred as an objection against this wheat. The fact as stated is undoubted. I never knew it otherwise—and for several years I participated in all the evil forebodings that such an appearance gave rise to; but after repeatedly reaping and measuring up my crops, finding that the average product was greater per acre than from all other sorts of wheat, that the grain was heavier per bushel, and that the sample was as fair, if not fairer to the eye, I looked upon the black or blasted heads with diminished concern, and feel entire confidence now in the safe and ample productiveness of the crop.

Let me here recapitulate. This early wheat has a shorter head, a shorter straw; it does not seem to branch so much as some other kinds of wheat; it has more black or blasted heads than any other sort I have seen—yet, under all circumstances, it is subject to fewer disasters, and produces generally a better crop than any other wheat.

It is objected against this wheat, that it will not do to seed it in very poor land. Will it do to seed any wheat in poor land? Poor land is indefinite, but any land that ought, upon a principle of thriftiness, to be seeded in wheat, will produce more bushels and more pounds weight per acre in early wheat, in an average of any number of years more than one, than in any other sort.

Another objection made is, that the straw of this wheat is shorter, and you do not get so much rack food or long litter (which ever you apply the straw to) as from other wheat. The answer to this is, you grow wheat for the grain, not for the offal.

Among the advantages attending this wheat, it may be stated, that you may harvest it earlier than other wheat, judging from the appearances they present—for, different from other kinds of wheat, the head appears to mature earlier than the straw, and no wheat falls more compactly and neatly in the cradle than the early wheat—the loss in harvesting will always be less, with equal care and skill, than from other wheat.

It has been inquired whether the early wheat will bear feeding on it in the autumn, or winter, or spring, without more loss than other wheat. From my own experience I know of no wheat that bears feeding on it half so well. This time twelvemonth, I had a detached piece of early wheat on which I permitted colts and calves to feed, from the last

October until Christmas. At Christmas, in consequence of the number of young stock that had been upon it, there was little or no appearance of wheat in the field; but on the memorable Whitsun-Monday, when the hail storm desolated all our fields, the crop was beautiful and promised to be abundant. I have often permitted my stock to feed upon my early wheat before, and have seen others do it, in autumn, in winter, and in spring, as late as the month of April, and have found the product very good afterwards. Whether the product would have been greater had it not been fed on, I cannot say. It is a litigated point among agriculturists whether feeding on wheat is injurious to it. If any wheat will bear it, I am persuaded the early wheat will, because its greater rapidity of growth more speedily supplies the destroyed shoots. Indeed it is enumerated among the valuable qualities of this grain, that seeded early in October on good land, it will afford a plentiful pasture during the autumn and until Christmas, and then kept up, will yield a certain and plentiful crop of wheat. Thus a farmer in the neighbourhood of a good market, who would seed one of his well prepared rich lots in early wheat about the first of October, could make the most beautiful butter from the pasture on that lot until Christmas, and then be assured of a good crop the succeeding harvest.

Unless something very different from the ordinary casualties that befal the wheat crop, assails us the coming year, I am persuaded that all who have seeded the early wheat this autumn will find an advantage in it, both in consequence of a more successful crop, and of being enabled to get the crop to market in such time as will enable the millers to prepare the flour for the European market, before their crop can possibly be harvested. Anticipating this single advantage, so likely to be realized, must cause us to look to this wheat as of essential service to the farming interest, and I hope, as I cannot but expect, that it will be the means of making the wheat crop much more certain, and consequently much more serviceable in time to come.

That there are evils which will destroy all wheat crops of whatsoever kind they may be, none pretend to deny; but we find by experience that there are many evils that destroy the crops of various species of wheat that do not affect the early wheat; but we know of no disaster to which the early wheat is liable, that is not common to every other species. Respectfully, your ob'dt serv't,

ROB'T H GOLDSBOROUGH.

(From the Southern Agriculturist.)

SUGAR AND INDIGO.

On the Culture of Sugar and Indigo—by T. Spalding, *Esq. of Georgia.*

Sapello, (Geo.) Aug. 1828.

Herewith you will receive some memoranda, made by myself, upon a sugar plantation in Louisiana of fair repute, in the spring of 1825. It gave two hundred and eighty thousand weight of sugar from three hundred acres, laboured by from seventy-one to seventy-three persons, mostly men, say fifty of them. The mill, a six horse power steam engine, high pressure, a double set of copper kettles, for fear of accident to a single set.

The crop was at least an average one. It gave four thousand weight of sugar to the hand; you may rest asured that this was more than an average crop for Louisiana, in any of its districts; and would be about $250 to the hand; but we must remark that the capital invested in land, and the machinery, was estimated at about $60,000; five hundred acres of sugar land, with a portion of morass which gave timber for plantation purposes and fuel.

Mr. Williams, whose estate is about twenty-five miles below New Orleans, on the river, and who is respected in that country as a distinguished planter, and highly informed gentleman, stated to me, that he considered six thousand weight of sugar might be made in a favourable season to the land. Mr. Williams' crop would be from four to five hundred thousand; but his lands were fresh, reclaimed by himself, and possibly would be valued at 80,000 or $100,000.

Colonel Proctor, formerly of South Carolina, has been perhaps the most successful planter in Louisiana. His lands are quite fresh, situated between two lakes, thirty miles below New Orleans, which tempers the climate more than upon any other estate I saw in that country. He has made two thousand weight to the acre, which is as much again as the old lands produce annually. But Colonel Proctor plants short to the hand, and would not exceed Mr. Williams' estimate of six thousand weight, probably four hundred dollars; but this four hundred dollars is purchased by great labour, by great expenditure upon land and upon machinery, and could not possibly be reached by any person upon a small scale, without much expenditure. Col. Proctor has a million of bricks in his sugar works, and a twelve horse steam engine for expressing his cane. I give you these details in order to put down the extravagant reports which are circulated by transient visiters from the west, than which nothing can be more injurious to the real agriculturist. His expectations are excited to an extravagant degree, feverish inclinations are generated in his mind to flee to this land of promise. The reality is widely different. Of all that have gone, (and I know many of them,) two out of three have been totally ruined.

Sugar may be cultivated from Charleston to St. Mary's, with reasonable expectation of a moderate result. The winter of Charleston is as mild, at least, as the winter of New Orleans. The alluvions of our tide rivers can be drained as deep as the alluvions of the Mississippi, which are an inclined plain at the river, eight feet above the morass water, but ending about a mile back at nothing. Thus, generally, the mean height of their fields above the water, is four feet; this elevation our river lands have, but they have this elevation more conveniently distributed, because equal, instead of being eight feet at one end of the field, and on a level with the water at the other.

The ribbon cane, which is so much talked of, Louisiana owes to the late Mr. John McQueen, of Savannah. He brought it from Jamaica, and distributed it among his friends in Georgia; from whence it has been carried, within four years, to Louisiana. With steam mills to express the juice, it is certainly the best cane; but animal power is not sufficient for a radical expression of its juice, as I have proved to my great loss these ten years past.

I think you should procure from some of the elder planters, a carefully prepared paper on indigo. My father cultivated indigo until I was sixteen; memory is far from furnishing me with any evidence of its being an unhealthy culture; it generates flies, but not more than a livery stable or a manure pen. I have questioned, upon the subject of the quantity to be expected to the hand, our two last indigo planters, both gentlemen of intelligence, of character, and of truth. They say, a set of indigo works that cost $120, would work off thirty acres of indigo; would require to attend eight good hands, or ten ordinary ones; would give in a bad year, one hundred pounds of indigo; in a moderate year, one thousand five hundred; in a year of great crop, two thousand pounds. The house of Davidson & Simpson, of London, have twice written me that the copper indigo, which was formerly produced in Georgia, would command now in London, from 7s. to 7s. 6d. per pound. Take the negroes at the highest, say at ten; take the medium crop, one thousand five hundred: this gives one hundred and fifty pounds of indigo to the hand, which, at 7s. would be $225. What could be more profitable?

As to our enemies at the north, the woollens men, they would not buy our indigo for years; their prejudices are too deeply fortified, and I rejoice at it; for I trust in God, there does not live a man in either state, that would directly or indirectly willingly receive one cent from a tariff, whose only support before Congress, was in the *simplicity* of corruption, bargain and sale.

A Mr. Gray, who had, before the revolutionary war, been the manager of an indigo plantation for Mr. John Bowman, on Skudaway island, near Savannah, and who was discharged for his violent political opinions, was patronized by Gov. Wright, and sent to England, and from thence to Bengal, for the purpose of introducing the American mode of manufacturing indigo—that is, by large steepers and beaters.

As far as I can see, the Bengal Indigo, manufactured in our American manner, owes its superiority to two circumstances: settling the water of the Ganges in large tanks before it is used for steeping, and from passing the mud, or colouring matter of the indigo, from the beaters, after it has subsided, into copper boilers, where it is allowed to simmer for twelve hours, or until all the watery particles are dispersed, before it is put into the press. This prevents vegetable fermentation, and gives solidity and firmness to the indigo, and perhaps a more uniform colour. But both these improvements might be adopted with great ease, and at trifling expense.

I remain, dear sir, with esteem, &c.

T. SPALDING.

SOUTH CAROLINA AGRICULTURAL SOCIETY.

Anniversary Meeting, 19th August, 1828.

At the anniversary meeting of this Society, held on the 19th of August, the following gentlemen were elected officers for the ensuing year, viz:

John Hume, *President.*
Hugh Rose, *Vice-President.*
C. E. Rowand, *Secretary and Treasurer.*
W. Washington, *Corresponding Secretary.*
J. D. Legare, *Librarian.*
C. C. Pinckney, *Orator for next Anniversary.*

THE FOLLOWING COMMITTEES WERE APPOINTED:

On Arrangements and Premiums.—Dr. William Read, E. Horry, J. D. Legare, J. Ferguson, J. Cuthbert, W. Washington, J. Harleston, and the Officers of the Society.

For Importing Seeds, &c.—E Horry, F. D. Quash, T. H. Deas, W. M. Parker, J. S. Ashe.

On Communications—W. Washington, W. E. Morris, J. Huger, J. H. Read, E. Horry.

Committee on Importing Implements of Husbandry.—C. E. Rowand, W. Washington, C. C. Pinckney, J. Rose.

Extract from the Minutes,

J. H. READ, *Sec'ry, P. T.*

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Tuesday, October 28, 1828.

At a meeting of the Agricultural Society of South Carolina, on motion—

"*Resolved*, That a committee, consisting of Jas. Gregorie, Charles E. Rowand, (treasurer of the society,) and Hugh Rose, be appointed and authorized to receive communications from such of the sugar planters in this state, Georgia, or elsewhere, as may decide on sending to France for information on *the mode of preparing sugar from the beet.* Also, to receive and appropriate to that purpose, any funds transmitted to this society by planters interested in this important culture."

The object of the mover of this resolution is, to give the application for information on this subject as much importance as it can receive. When made by so respectable a body as the one which has now taken it up, and through the representation of the government, our excellent ambassador at Paris, it becomes a national concern, will receive attention, divested of all personally interested motives, and be more likely to be attended with success than if made by individuals, however respectable.

The expense, we are assured, will be but trifling, compared to the advantage which may be looked for—it may be one hundred dollars, perhaps two hundred, or a little more; but it must be provided for, and the necessary funds transmitted before hand to the Treasurer of the society, Charles E. Rowand, Esq.

We recommend that a written description be sent for, fully detailing the process in all its parts; with a model or drawing of the boiling or refining house, as used on the sugar farms, with all the implements used in it; and a sufficient quantity of the *Noir Animal*, *Albumen*, or any other material required in the process, sufficient to try several operations on different plantations.

If the method of preparing the *Noir Animal* and *Albumen*, are not secret, to get the *recipe* for this also.

Letters on this interesting subject, may be addressed to the Chairman of the Committee, *Charleston.*

[*Southern Agric.*

AGRICULTURAL ASSOCIATION.

Dear Sir, *Lancaster county, Nov.* 5, 1828.

An agricultural association was formed in this county during the last winter, which offered three premiums of different amounts for the first, second, and third largest quantity of merchantable Indian corn, to be made from five acres of land; meadow land of any description was excluded. The premiums have recently been awarded as follow: 52 barrels and 4 bushels took the first; 52 barrels 1 bushel and 2 pecks took the second; and 43 barrels the third. Our season was very unfavourable to the growth of Indian corn, being exceedingly dry. The second prize was raised on high forest land, and encountered severe drought. Our most judicious farmers believe, from this experiment, that from fourteen to fifteen barrels can be raised per acre, and that our high forest land, when improved, is the most certain, and perhaps the most productive land.

We expect by similar and more enlarged and varied experiments, still further to develop the qualities of our soil, and the various and extensive resources with which nature has provided us.

A Member of the Club.

EXTRAORDINARY YIELD.

The River La Plate, or long red Potato, is noted for its fruitfulness. A gentleman of this town raised the present season from two bushels and a peck, fifty bushels. The ground was broken up last year, planted with potatoes and manured very liberally. The present year it was not manured at all. The potatoes were cut into one or two pieces; one piece was planted in a hill and the eyes were carefully placed uppermost. They were lined as soon as they were up, and also after they were about six inches high

Another person informs us, that he once raised over three pecks from one potato of this kind.

[*N. Eng. Far. and Mech. Jour.*

LARGE CORN.

Mr. Skinner *Red House, N. C., Nov.* 16, 1828.

In No. 34 of the American Farmer, I discovered a letter addressed to you by Mr. J. H. Webb, of Fredericktown, Maryland, concerning a stalk of corn which grew in that vicinity; and he further adds, that it goes to show the great fertility of the soil in that section of the state.

As it has become fashionable for farmers to give an account of any remarkable production, or any new experiment, they are in duty bound to make it known through your valuable journal, for the benefit of farmers and the public at large.

There grew on my farm this year a stalk of corn, (and that was not the only one which grew on the piece,) which was, by accurate measurement, 16 feet 4 inches, and proportionably large. This goes to show you the great fertility of some of our bottoms in this section of the state—and I should like for any person to produce a taller stalk of corn, and make it known through your valuable journal. I believe the stalk of corn which I have just named, is the tallest I ever heard of. The piece of land which this stalk grew on, contained a little more than an acre, and it produced me, by accurate measurement, 14 barrels of good sound corn, and 2 barrels of short corn.

The corn was planted about the 15th of last May, and was planted in the usual way. It was up in a few days, and was soon fit for cultivation; and notwithstanding this remarkable production, it never had but one good hoeing and two ploughings, which completed the cultivation.

The crops of corn did not turn out as abundant as I anticipated, owing to a severe drought which took place about the last of July, and continued for near six weeks.

Yours, very respectfully,

JAS. W. JEFFREYS.

THE WEVIL—INQUIRY.

Union Farm, R. C., Ohio,
J. S. Skinner, Esq. *Nov.* 17, 1828.

Sir,—Having observed in the last number of your much valued paper, the American Farmer, (34,) in the answer by Mr. Calvin Jones, of North Carolina, to the queries of Captain Basil Hall, that the wevil are but little dreaded since their natural history and means of prevention have become familiar; I would feel myself under considerable obligation to Mr. Jones, or any gentleman who would give me a particular treatise on the natural history, as also the means for preventing the ravages of these abominable, pestiferous insects.

We have two kinds of wevil, viz: The white, or flying wevil; and the black, or bug wevil. A description of the former is most particularly requested.

Answers to the foregoing request through the medium of the American Farmer, or by private correspondence, will be thankfully received. Their ravages for a few years past have been almost incredible; which, with the addition of some other causes, have given wheat an advance of more than fifty per cent.

Wheat is now worth $1.00 per bushel in Chillicothe market; the like has not been known since the close of the late war.

WM. C. CLARK.

P. S. Information is requested as to the proper time of cutting elders, also briars, so as to be most effectual in their destruction.*

Mr. Moses Sawin, of Marlborough, raised 1888 Castor Oil Beans from one stalk, which he transplanted.

In Jasper county, Georgia, a number of Pears were raised last season, which weighed two pounds each.

Mr. Leelon Marvin, of Portage county, Ohio, this year raised a Potato which measured 18 inches in circumference, and weighed *two pounds.*

[* *Answer by the Editor.*—July and August, in Maryland.]

HORTICULTURE.

(From the Philadelphia Aurora.)

We take the opportunity, on placing before our readers the annexed account of the proceedings of a late meeting of the Horticultural Society, to say a few words in behalf of this meritorious institution. Travellers and residents, of observation, have remarked the want of attention in the interior of the United States, to Horticulture and gardening generally. This is a great blemish, besides being a serious loss. A house having a productive handsome garden attached to it, will bring twenty or twenty-five per cent. more rent than one without a garden, and the property is that much more valuable. Apply this to the whole state, and see the importance of Horticulture, even in a pecuniary point of view, and, in addition, we may have the luxuries of fruits and vegetables.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The adjourned meeting held on the evening of the 17th inst, at Philosophical Hall, was very well attended. The display of flowers was less imposing than on some former occasions, although quite attractive. Many of those exhibited had braved the pelting of the snow storm of last week, without loss of beauty or sweetness. Chrysanthemums of almost every shade were particularly admired: fifteen varieties of this favourite flower were presented by *Alexander Parker,* from his establishment on Prime street. The same enterprising gardener brought forward several beautiful species of roses, new daisies, geraniums, &c. &c., comprising about forty different specimens, all of which were carefully labelled with the generic and specific names. We hope this excellent practice will be generally adopted. A specimen of the Campanula Pyramidalis, plucked from a plant in A. Parker's collection, was particularly noticed; the plant is five feet high, has been flowering for more than three months, producing innumerable flowers of great beauty: it well deserves to be ranked among the choicest ornaments of the green house. The Society was also favoured with a very fragrant and beautiful boquet of flowers, from the garden and green house of *D. & C. Landreth:* also a flowering plant, Camellia Sasonqua, the chouchau of the Chinese, the flowers of which are used with those of the olea fragrans, to perfume Souchong tea.

[Staunton's Embassy, vol. 2d.

Six samples of wine made near our city, were sent for examination, three bottles of which were presented by *Mary Smith,* of Burlington, N. J.; two of them the juice of native grapes, the other made from currants. The specimen made from *skinned* grapes, with *white* sugar, was particularly admired for its pure whiteness and delicate flavour, forming a very agreeable and wholesome cordial. A bottle of currant wine, two years old, from *Edward H. Bonsall,* near Germantown, was pronounced very good; another bottle of the same kind, five years old, from *Jno. Graff,* Philadelphia county, was tasted. It is thought that currant wine does not improve by age. D. Landreth, Jr. presented a bottle of *Rapp's* (Harmony) wine: it was considered very fair, but did not quite answer the expectations raised by our complaisant visiter, *Duke Bernhard,* who doubtless was served at Economy with a bottle of very superior. Col. Carr's wine sustained its reputation. *George Esher,* [Ridge Road] presented a bunch of turnips, weighing four pounds each, the seed of which was given him two years ago by our late respected citizen, J. H. Roberjot, [late a member of the Pennsylvania Horticultural Society, and a warm friend to its objects,] who received it from France; the grower, who has for many years attended particularly to the cultivation of this vegetable, considers these turnips as altogether superior to any he has raised before, on account of their solidity and sweetness; he did not designate them by any new name. *John Esher*, of Penn township, presented two enormous cabbages, weighing sixteen pounds each, the produce of his garden. One might suppose they would supply a Dutchman's family with *Saur Kraut* for a twelvemonth. With such evidence before us, no one need doubt the fertility of our soil.

Upwards of twenty varieties of apples and pears challenged the special attention of the members. Among them were the St. Germain and spice butter pear, various kinds of pippins, such as the melton, golden, &c. the Spitzenberg, the wood apple, Hay's greening, &c. &c. We regret that many of the best flavoured were not labelled, and could not be certainly identified. We also regret that the names of the producers were not furnished. The fruit was said to be principally from the orchards of Burlington and Gloucester counties, N. J. and from Philadelphia and Bucks counties, Pennsylvania.

In concluding this hasty and imperfect notice, we would return our thanks, on behalf of the society, to such persons as have presented specimens of their horticultural products, and express a hope that others will follow so worthy an example, which cannot fail, if generally adopted, of becoming the means of collecting much information of practical utility.

THE GRAPE.

J. S. Skinner, *Beaverdam, Va.*, 10 *mo.* 12, 1828.

Respected Friend,—I observe in the last Farmer, an account of some grape seed presented by a gentleman of Philadelphia, of the name of Sam'l Webb, with a request that some of them might be planted at the distance of 1° 45' S. of that place. As I live about that far from Philadelphia and have turned my attention in some degree to the cultivation of the vine, I have concluded to apply for a few, if they are not all distributed. I will pay attention to them, and report my success, if nothing prevent.

I would be glad to see something in the Farmer respecting the proper manner of planting grape seed, so as to insure success. It would also, no doubt, be gratifying to many others of your subscribers. I have been making inquiries on the subject for some time, but have not derived any thing satisfactory.

Respectfully, thy friend,
THOS. S. PLEASANTS.

[*Note by the Editor.*—The grape seed had all been given to the Society here for the cultivation of the vine; they were few in number. Should Mr. Webb see this, he will doubtless send a few more. The information requested will be promptly published when received.]

SALSAFY, OR VEGETABLE OYSTER.

This plant, *Tragopogon porrifolium*, is biennial, and the root is a good substitute for the real oyster. It is of easy cultivation in a deep rich soil. The young plants are not so liable to be destroyed by insects, as most other biennials. The roots are white, and shaped like a parsnip. They may be taken up late in the autumn, and secured in moist sand from the air; or be suffered to remain out, and dug up when wanted. Every lover of oysters who lives at a distance from the sea-shore, will wish to cultivate this plant after he has once eaten them, when *properly prepared* for the table.

Mode of cooking.—Wash the roots, and cut them transversely into thin pieces; boil them in a little water, or milk and water; when boiled soft, mash them, and thicken the whole with flour, to some degree of stiffness; then fry them in the fat of salt pork or butter. They are a luxury. [*N. Y. Far.*

Disease of Silk Worms, and its Cure.

In the southern parts of France where silk worms are raised, it is very common to observe the insects attacked by a disease called the jaundice, in consequence of the colour acquired by them. Very careful examination is continually made for the discovery of such worms as may be attacked by it, that they may be removed, lest the disease, being contagious, should spread to the others.

The Abbe Eysseric, of Carpentras, had recourse to a remedy in these cases, which, though apparently dangerous, had been warranted by the success of twenty years. He used to powder his worms over with quick-lime by means of a silk sieve; he then gave them mulberry leaves moistened with a few drops of wine, and the insects instantly set about devouring the leaves with an eagerness which they did not usually show. Not one of the hurdles upon which he raised his worms, appeared infected with the jaundice. It was at first supposed, that the cocoons of silk were injured by this process; this, however, is not the case, and his method of practice is now adopted generally in the department of Vaucluse. [*Bull. Univ.* D. viii. 360.

INTERNAL IMPROVEMENT.

CHESAPEAKE AND DELAWARE CANAL.

We are much gratified to learn, from an authentic source, that this splendid work is rapidly approaching its completion. A few days more and the water will be let into the eastern division, which extends from the river Delaware to the west of the summit bridge. The western division will shortly experience the same happy issue, the major part of it having been finished for some months, and little remaining to be accomplished.

We further understand that immense quantities of lumber, and other articles, are already preparing on the Susquehanna, to take advantage of the first opening of this canal. Arrangements are also making to pass two lines of steam-boats between Baltimore and Philadelphia, by the same route.

Among the many advantages which our city is destined to experience from the Chesapeake and Delaware canal, not the least is that of a copious and seasonable supply of pine and other wood.—The immense demand, occasioned by the steamboats, has caused the destruction of most of the forests bordering on the Delaware, and the price of pine wood has accordingly advanced to $3.75 and even $4.00 per cord; while on the extensive shores of the vast Chesapeake the supplies are of an extent scarcely to be calculated, and the article so cheap that it can be purchased, deliverable at the western tide lock, at $2.12½. It is believed, by gentlemen conversant with the subject, that from 80,000 to 100,000 cords of this useful fuel will annually pass through the canal for the Philadelphia market, affording a handsome revenue to the stockholders; for, supposing the company to charge no more than fifty cents a cord for toll, a rate which its apparent owners can well afford to pay, the revenue to the canal from this source alone, will be from forty to fifty thousand dollars a year. [*Phila. Aurora.*

INLAND NAVIGATION.

Much has been said, at different times, for several years past, upon the importance of opening a navigable communication between the chain of western lakes and the Mississippi through the Fox and Ouiconsin rivers. No means of information, however, has been accessible to the public, by which the actual merits of the project could be fairly understood. It has long been known, in general terms, that these two rivers head near to each other, and that, at high water, canoes have passed from one to the other; but more than this was scarcely understood. The indefinite geographical accounts of the region in question, have been chiefly acquired from hunters and traders, who too frequently withhold facts, from motives of policy, when their business pursuits would be injured by disclosures, and thus the natural advantages of the country remained unexplained. The "Miner's Journal," (a new paper that we have noticed in a recent article,) at Galena, Illinois, has taken up the subject with spirit, and furnishes much useful knowledge of the surrounding country. The following is the language of that print:

"We believe there is not a point upon the globe, where so little human labour as would be required to complete this work, would be productive of so stupendous effect. The trifling expense of cutting a canal through a perfectly level plain, the distance of *six miles*, would open the most easy, direct and facile water communication between the eastern states and the whole valley of the Mississippi. It would be like connecting two large continents: yes, completing this link in the grand chain of nature, would effectually encircle the United States with navigable waters."

The editor supposes, that a small garrison of United States' troops, posted at the portage, might complete the work in a few months, without expense. Upon the location for a military post, the editor observes:

"We conceive this point to be one of the most eligible situations for a garrison on the western waters; a point from which transportation of troops, or military stores, may be made *down either river*, at any season of the year; and is equi distant from Prairie du Chien and Green bay, and on the extreme northern boundary limits of the mineral country. Thus situated, it would be the most formidable and protecting safeguard against Indian hostilities upon the inhabitants who are settled in the mining district."

This district embraces an area of about *twenty thousand square miles*, and is well watered by numerous streams that flow through it. Among these are Blue river, and one or two smaller streams, which, running northwest, fall into the Ouisconsin: Rock, Great, Platte, Fever, Menomine, Sissinewa, Small-pox, Apple and Plum rivers, and Rush creek, all falling into the Mississippi. Rock river rises in three branches, and continues thus distinct for ninety miles, before uniting in one. Nearly all these streams rise in high lands, and pursue their courses over rocky bottoms, of rapid descent, until within a few miles of the Mississippi, when they become deep, sluggish, and navigable. The Ouisconsin, being less rapid in its descent than the others, is navigable in high water for steam boats, nearly or quite up to the point of the proposed canal. Several of the remaining streams afford, in their descent, many sites for mills and other machinery.

The mining district, as it is denominated, affords lead, in any supposed quantity, equal in value to that from any part of the world; and the canal of six miles once completed, that mineral will be brought from the mines whence it is raised, on Fever river, to our wharves, by a continuous water communication. From this point, the Erie canal will convey it to the tide waters of the Atlantic, thus placing it in reach of the whole civilized world The tide of emigration which is rolling into the regions of the west, is each day augmenting the demand for such necessaries and luxuries of life as can only be procured from the sea coast These supplies are now mostly obtained at New York, and to reach their destination, are sent to New Orleans coastwise, whence they ascend by slow and expensive routes, the rapid western rivers. All this property, when the water communication is fully open, will find its way, through the Erie canal, the western lakes, to Green bay, and thence, by the Fox and Ouisconsin rivers to the place of its consumption. The great saving in time, transportation and risk, will insure this result; and the advantages, both of a national and state character, offered by the proposed work, are such as should rouse to immediate exertion. Even now the voyage by the canal and lakes is often made, as boats can cross the six mile flat in high water; and the Galena marine list, now before us, notes the arrival of a Mackina boat, via Green bay, with goods from New York! [*Buffaloe Journal.*

LADIES' DEPARTMENT.

(From Littell's Religious Magazine.)

The Helleborous Niger—or Christmas Rose.*

When nature hides her lovely face
  Beneath a snowy veil,
And, clasp'd in winter's cold embrace,
  Her changing beauties fail;

There is a wild and simple flower
  Unfolds its partial bloom,
To cheer the solitary hour,
  And cheat it of its gloom.

A little monitor design'd
  By providence divine,
To beam instruction on the mind
  That wanders near its shrine.

From earth's maternal bosom brought,
  A gem to genius given,
To guide the current of his thought,
  And point his eye to heaven.

And knowledge, unalloyed as this,
  From wisdom's self acquir'd,
Shall rival all the dubious bliss,
  By meaner thoughts inspir'd.

The wife of a man who could ill afford it, having purchased a *fashionable* hat, said to her husband. "My dear, do you think my bonnet is of more than a *medium* size?" "No indeed," replied the husband, "I should say it is nearer the size called *fools-cap.*"

SPORTING OLIO.

(From the Hunting Directory.)

FOX HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound.—Of the Size, Colour, and Breeding of Hounds, &c.

The kennel being prepared, its tenants of course form the next subject for consideration. The breeding of hounds demands the utmost attention of the sportsman; and I am inclined to think, that, up to the present period, it has not been thoroughly understood: I am of opinion that we have not reached the acme of perfection in this respect, although I am aware that extraordinary hounds have occasionally made their appearance, whose performances are to be found recorded in several publications, and who have therefore obtained a triumphant immortality through the medium of the press. For instance, two hounds belonging to the late Mr. Barry, (then master of the Cheshire hounds,) Bluecap and Wanton, became celebrious for uncommon speed: they are said to have run a drag "from the Rubbing House at Newmarket-town-end, to the Rubbing House at the starting-post of the Beacon course, in a few seconds more than eight minutes," beating two capital hounds belonging to the late Mr. Meynell. Merkin, a fox-hound bitch, bred by the late Colonel Thornton, ran a trial of four miles, which she performed in seven minutes and half a second. Madcap was another famous hound belonging to the same gentleman; as also Lounger, who was supposed to be the best fox-hound of his time. "Madcap, at two years old, challenged all England for 500 guineas. Lounger, brother to Madcap, did the same at four years old. The challenge was accepted, and a bet made for 200 guineas, to run Mr. Meynell's Pillager; the parties were also allowed to start any other hound of Mr. Meynell's, and Lounger was to beat both; but, upon Lounger being seen at Tattersall's by many of the first sportsmen, his bone and form were so capital that it was thought proper to pay forfeit, which was done by giving Col. Thornton a pair of gold couples." These, however, are instances merely of extraordinary speed, which is certainly highly necessary in a fox-hound; yet, there are other qualities, and superior olfactory organs in particular, which ought to be considered as equally indispensable.

All the ramifications of the hound which we at present possess, sprung from one and the same source, namely, the *Talbot*, or old English bloodhound.* These dogs are noticed by our immortal bard, who represents them as "crook-kneed and dewlapt, like Thessalian bulls." Shakspeare, it is well known, was prosecuted for deer-stealing, by Sir Thomas Lucy; and as the Talbot, or something nearly allied to the Talbot, was used at this period by deer-stealers, he must have been well acquainted with them. Crook-kneed is not a flattering recommendation in a hound, nor is such a circumstance noticed by Somervile, who thus describes the Talbot:—

"But if th' amphibious otter be thy chase,
Or stately stag, that o'er the woodland reigns,
Or if t'harmonious thunder of the field
Delight thy ravished ears, the deep-flew'd hound
Bred up with care, strong, heavy, slow, but sure;
Whose ears down hanging from his thick round head
Shall sweep the morning dew, whose clanging voice
Awake the mountain echo in her cell,
And shake the forests: the bold Talbot kind,
Of these the prime as white Alpine snows,
And great their use of old."

It is very probable that neither Shakspeare nor Somervile was so intimately acquainted with the Talbot, as to render either of their descriptions perfectly accurate. As to the dewlap noticed by the former, we see a striking approach to this in many of the deep-mouthed hounds of the present day; which an old sporting friend was wont to denominate, significantly enough, "*throaty dogs.*"

Those specimens of the Talbot, or at least of a near approach to the Talbot, which have fallen under my observation, were animals of great size, in height about twenty-seven inches, bony and powerful. Their heads and ears were very large, with much loose skin or leather about the mouth, and the nose much more obtuse than pointed. Their countenances were expressive of a solemn sagacity, which rendered them highly interesting and even majestic. Voice very deep and sonorous. In colour they were inclining to what may be called the dark tan, though Somervile seems to think (I believe erroneously,) that *white* was the distinguishing colour of the prime Talbot.

(*To be continued.*)

MISCELLANEOUS.

KENTUCKY.

A gloomy picture, and a powerful exhortation to reform.

[☞The following extract is from an editorial article in the Kentucky Gazette. One who writes so fluently, doubtless sees clearly; and hence the more serious and worthy of the regard of her statesmen, is the declaration that "*Kentucky at this moment is in a worse condition, notwithstanding her natural advantages, than any state west of the Allegany.*" This averment, by a competent judge on the spot, and evidently alive to the welfare and honour of the state, will excite the wonder and the sympathy of all who know, as all do know, that no state in the Union can boast of men of more ardent patriotism, more resolute and enterprising in their personal character, nor of more active minds. Whence, then, the perversion of these noble qualities? We dare not give it as a "sign," but we may mention it as a fact, that in no western or southern state are there so few subscribers to the American Farmer as in Kentucky.]

If we were called upon to select that spot of earth, where, in our opinion, man could live free and happy, we would unhesitatingly point to Western America—to the states west of the Allegany mountains, and situated in the great valley of the Mississippi. Here nature has kindly furnished all that is requisite to the happiness of man. Here, we have every advantage of soil and climate. But a few years ago, this extensive region was the abode of savages, and the haunt of wild beasts: now, it is the seat of science and civilization. Where once the savage roamed in all his native pride, is now the residence of civilized man—cities, towns, villages and churches, have been reared in places that were once rude and uninhabited wilds.

Among the western states, Kentucky justly occupies a proud and distinguished rank. During the late war, her sons marched with alacrity against the enemies of their country, and by their bravery acquired for themselves immortal renown—renown that will last after the present generation shall have passed away, and will constitute a source of pride and gratification that will nerve the arm of the future warrior, and animate him in fighting for his country's liberties and rights. But why this digression? With all our advantages of soil and climate, our younger sisters of the west, are greatly in advance of us in works of internal improvements, in roads, canals, &c. Look at Ohio, her roads and canals. Is it not enough to produce the deepest mortification, that this young member of the Union should have so far outstripped us in great and important public improvements. With the exception of the little canal at the falls of Ohio, which is now almost completed, we have not a single work that merits the name of a public improvement. Our roads in winter are almost impassable. No efforts are making to improve them. About what have we been engaged for the last ten years? We answer, quarrelling among ourselves, about matters of comparatively but little importance. Whilst the members of our legislature should have been devising ways and means to improve our roads, establish a system of education, &c., they have been engaged in disputing about the relief system, the new and old court, filling the country with confusion and splitting the people into factions. In the meantime,

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[*] This beautiful plant grows wild on the Appenine and other mountains, preferring such as are rocky. If the weather be mild, it will flower in our gardens in the open border, in December and January; unfolding its delicate blossoms among the earliest heralds of the spring.

[*] A very different animal from the blood-hound employed by the Spaniards in the West Indies, to hunt the runaway negroes. The Spanish blood-hound is a large ferocious animal, with small pointed ears, and very inferior olfactory organs; so much so indeed, that in all intricate cases, they are accompanied by a smaller dog, called a *finder*. For a further illustration of this subject, we refer the reader to *Dallas' History of the Maroon War.*

hundreds of our industrious and enterprising citizens have been driven to seek homes in our young and flourishing sister states. Kentucky at this moment is in a worse condition, notwithstanding her natural advantages, than any state west of the Allegany.

To what cause are we to attribute the decline of a state that once promised to become so great and flourishing? We answer to our own supineness. Let us awake from our lethargy—let us cordially unite in support of those measures which seem to be best calculated to redeem us from our present condition, and Kentucky will quickly assume a different and more interesting aspect.

Have we no public spirited citizens? Men, who look more to the interest of their country, than to their own personal aggrandizement? We certainly have. These are the men that we should now select to fill our public offices. Men of liberal and comprehensive views, who are ardently devoted to the interest, the happiness, and the glory of their country.

COTTON MACHINERY.

To the Editors of the National Intelligencer:

Machinery for spinning cotton was put into operation at Pawtucket, in Rhode Island, in 1790, by Mr. Samuel Slater. This was but twenty years after its invention by Sir Richard Arkwright. For seventeen years the progress of the business was extremely slow, for up to January, 1807, there were but 4000 spindles in operation.

Almy Brown and Slater's mill, at Pawtucket, ...	*spindles.*	1000
Wilkinson, Green & Co.	do.	1000
Pawtucket Manufacturing Co.	do.	400
Coventry Manufacturing Co., Coventry,		500
Union Mill, Cranston, . .		700
Smithfield Manufacturing Co., Smithfield,		400
		4000

In October, 1815, with a view to the tariff of 1816, an accurate statement of the number of cotton spindles in operation within thirty miles of Providence was made, and they were found to amount to 130,000, and the quantity of cotton consumed to 29,000 bales. In 1820, the whole number of spindles in the whole country, was estimated at 265,643. This appears by the returns made to the Secretary of State, In 1820, there were in Rhode Island 63,472. In January, 1826, an accurate account from the books of the different mills, makes the number in operation 163,846. The number in operation, within thirty miles of Providence, is 317,542. The quantity of cotton consumed in one year by that number of spindles, is 18,171,500 lbs. or 56,778 bales, 320 lbs. to the bale. Thirty-seven thousand bales were imported into Providence, and the residue into Norwich, Bristol, Warren, Troy, and Taunton. The whole number of spindles in the country, I have no certain means of ascertaining. From my own knowledge of the number and extent of the establishments in New Hampshire, Massachusetts and Connecticut, and from information derived from various sources, in relation to other states, it is my opinion that the district within thirty miles of Providence contains one quarter of the spindles in the country. This would make the whole number 1,270,168, and the quantity of cotton consumed, 72,686,000 lbs., equal to 227,112 bales. There are various opinions, however, on this subject. Some think that the district referred to does not contain more than one-fifth, and others that it contained one-third of the machinery of the country. The latter is the safest, and would make the consumption of 1827, 170,384 bales, or 54,514,500 lbs. and the number of spindles 952,626. Should the increase of machinery for the ensuing twelve years, correspond with the increase from 1820 to 1828, it would be sufficient to consume all the cotton now grown in the country.

A thousand spindles require, on an average, 41 persons within the factory. All the machinery in the country require but 39,031 persons, principally women and children. Two hundred and twenty thousand within the mills, are sufficient to spin and weave 1,000,000 bales of cotton annually—more than is at present grown.

The average wages of 1000 spindles, is $6000, equal to $5,712,000 for the 952,000 spindles now in operation.

The number of persons indirectly employed cannot be accurately ascertained. It much exceeds, however, those employed within the mills.

The imports into the town of Providence during 1827, may give you some light on that point—36,404 bales of cotton; 99,369 barrels of flour; 475,704 bushels of corn from the middle and southern states; and 326 vessels of lumber, from Maine, are among the larger articles.

It will require 17,000 tons of coal to warm the mills and shops now employed in the manufacture of cotton. The increased safety of that kind of fuel recommends it so strongly, that it is rapidly taking the place of wood. It is not generally known that the materials composing the dyes for printing, consist of more than twenty different kinds. The principal are indigo, madder, sumac, sugar of lead, ashes, vitroils, &c. It is confidently stated by an intelligent manufacturer, that the freight on madder alone much exceeds the freight upon English calicoes. It is undeniable that the freight paid on all the materials for bleaching and dying, is more than double the freight upon English calicoes.

Many of the materials are grown or manufactured in this country by the aid of a protecting duty; and the prices have become much more reduced than on articles for which we depend on foreign nations. Oil of vitriol, four years since, was seven cents—it is now four; a similar reduction has taken place upon blue vitriol, alum, and most chemicals.

Perhaps it may be useful to state, that, by the present law, a square yard of calico, worth perhaps 50 per cent. more than before it was bleached and printed, pays a less duty than in the brown state.

Every square yard is estimated at 30 cents, and a duty of twenty-five per cent. imposed upon that, making 7½ cents in the brown state. Let the same piece of cloth be bleached and printed, and it will shrink about three inches in width, and pay a duty of $6 89 cents only.

On a piece of calico cloth, in the brown, 28 inches wide, the duty will be $5 67 cents. The same piece when bleached, will be 25 3-4 inches wide, and the duty $5 22; making a difference of nearly half a cent a yard less on the finished than on the unfinished article. The American printer has on the other hand, a pretty heavy duty to pay on most of the materials for dying and bleaching.

Very respectfully, &c.

JOHN WHIPPLE.

Washington, March 13, 1828.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 12, 1828.

☞ Now that the Presidential election is decided, it may be hoped that the people will turn their attention more immediately to their household and domestic affairs, and see whether there is not room for reform in their habits of living, in their modes of farming, in their domestic animals—whether by earnest associations and conferences for these ends, something may not be done to ensure for their children better educations at less expense; whether the time which is spent in eager search after transient popularity, had not better be given to the culture of their own minds, and in improving the moral condition and social qualities of those whose happiness may be immediately influenced by their exertions and their example. It strikes us that much of the complaint about hard times and unusual distress, grows out of circumstances which are not sufficiently adverted to. Society, especially in the slave states, where the white population has not been accustomed to manual labour, presents to the eye of the reflecting observer, the picture of a continual struggle between their pride and their destiny. We do not know that we can make ourselves understood. Let us see. A continual and very striking average tendency is in progress towards a state of comparative poverty; a state in which the men and the women, the father and the mother, the sons and the daughters, must *actually work* for their subsistence. Yet this irresistible tendency, growing out of the oft and again repeated division of estates is not accompanied with that change in the habits of thought, of feeling, and of action, which *must finally* result from it. The progress towards very limited means, and the necessity that will force itself upon us to abandon superfluities and luxuries *is faster* than the perception of that tendency on the part of the existing and rising generation. They seem as if they were afraid to look facts boldly in the face, and at once adapt their modes of living to their circumscribed resources. A father of ten children for example, possessed we will say of an ample fortune, enough to live in affluence—to drive his coach and pair; to drink his pint a day of good honest Madeira (a not unenviable privilege;) to keep his extra horses and extra servants, with beds and stables for as many kind neighbours as choose to favour him with their society. His wife and daughters had a *carte blanche* to get whatever they fancied at some neighbouring store; but his hospitality and his expenses made it impossible to *accumulate* —fortunate if he could make both ends meet. He dies, and leaves his lands, his negroes, his horses, his cattle, his sheep, and even his silver spoons, to be divided into *ten* equal parts amongst his children. They have been unaccustomed to labour and hardship—they all strive to live on in the same way—they are forever looking back to what they were—they dare not contemplate the change that has ensued; they would fain indulge in every luxury—they would be generous and hospitable even when they have no longer the means of being just: and this is the actual and irreversible state of American society in a great portion of our country. It is as we have said, a constant struggle between pride and necessity—a habit of thinking and of living on a scale *above* instead of *below* their resources; and this is the true source of much of the mortification and distress which are ascribed by pride and resentment, and false views, to other causes. It would be much wiser to look ahead, to anticipate the changes of fortune that springs directly from the operation of our laws regulating descents, and accommodate ourselves before hand to the circumstances that await us—but "hope springs eternal in the human breast," suggesting the truth that "Man never is; but always *to be* blessed."

Would it not be well to hold meetings in every neighbourhood, and to resolve to sustain each other in the practice of all honourable frugality, and to establish in each family the practice of reading aloud every night, for at least one hour, not the garbage to be found in a slang-whanging village partizan paper, but from some useful book. Where there are children the reading might be done by them with double advantage.

The people of Nottoway county, in Virginia, have met, and published in the Richmond Enquirer, a strong remonstrance against the tariff, which concludes with the following resolutions, some of which might be practised with singular benefit every where.

With these views of the tariff, we, the people of Nottoway, deem it our duty, as good and lawful citizens, to evince our opposition to its principles, and to avail ourselves of every honourable and constitutional means within our power, to counteract its effects and hasten its repeal. Therefore, resolved,

1. That we do approve of, and will most cordially co-operate in the resolutions adopted by our fellow-citizens in different parts of the state, to counteract the effects of the tariff.

2. That we will, as far as practicable, manufacture our own clothing, encourage, generally, domestic manufactures, and discourage the introduction into the state of any commodity, the growth, product, or manufacture of any state that has, or shall hereafter sanction the violation of our Constitution, by means of an oppressive tariff.

3. That we will, in our household and plantation affairs, practice the most rigid economy; will raise, and encourage our neighbours to raise, such hogs, horses, and other live stock, as may be necessary for us, and will adopt every practicable means of curtailing our expenses, and rendering ourselves independent of those who are imposing upon us "burdens difficult to be burne."

4. That we will encourage and patronize the establishment amongst us, of such permanent public factories and trading concerns, and such only, as are calculated to lessen the exportation of raw materials, and the importation of manufactured articles.

5. That we deem it expedient and highly desirable, and earnestly recommend to our fellow citizens, to form neighbourhood associations for the better promoting of the grand object of our present meeting.

6. That we will support our representatives, and co-operate with our legislature and our fellow citizens generally, in all legal and constitutional measures calculated to relieve us from the evil of an oppressive tariff.

7. That though we consider the principles of the tariff the same in effect, with those upon which were formerly based the high imposts and duties of the English government, which led to the war of the revolution, yet, circumstances being different, we should adjudge a resort to any measures of violence, in the cause we are now advocating, to be both inexpedient and unconstitutional.

The foregoing preamble and resolutions were unanimously adopted, and ordered to be furnished for publication in the Richmond Enquirer, the Old Dominion, and the Times.

H. R. ANDERSON, *Chairman.*
H. C. Worsham, *Sec'ry.*

(From the N. Y. Evening Post of Tuesday, Dec. 9.)

Latest from England.

By the arrival of the ship Brighton, Captain Sebor, from London, last evening, London papers to the 1st of November have been received. They contain the important intelligence of the fall of Varna. Two mines having been laid by the Russians under the walls of the fortress, were sprung on the 4th of October, by which two breaches were made in the north bastion. On the 7th the sharp shooters penetrated into the bastion without firing a shot, killed and dispersed the soldiers by whom it was defended, and meeting no resistance were imprudently led to enter the town. The besiegers endeavoured to support them by making false attacks on various parts of the town, but notwithstanding this, the party that had entered Varna were obliged to retreat before the enemy. They brought with them many Christian women and children, and spiked 14 cannon in the north bastion. The Russian loss was estimated at 80 killed and 300 wounded, and that of the Turks at 600. On the 9th, Jussuf Pacha opened negotiations with the besiegers, and on the 11th capitulated. The garrison it appears amounted to but 6000 men.

London, Oct. 31.

Imperial aggregate average of wheat, for the last six weeks, 67s 6d, ($15.) Last week's average, 76s, ($16.88 2-3.) Present duty on wheat 18s 8d, ($4.16.)

Corn Exchange.—There was rather a dull sale for English wheat; but bonded wheat continues in brisk demand at an advance of full 2s (44 cts.) per quarter since Monday, but it is not dearer than on Wednesday. The duty on foreign wheat is reduced this week 4s (88 cts.) per quarter.

Leeds, Oct. 28.—Old wheat was 2s to 4s, and new 5s to 6s higher in our market to-day.

London Market, Oct. 31.—The purchases of sugar have been limited this week, but the prices are firm. The late active demand for coffee has subsided; the holders of foreign coffees, however, anticipate a further advance. The sale of indigo closed yesterday, and up to the close nearly maintained the advance already noticed. The demand for the continental markets is brisk. The demand for sugars is regular, and the public sales have realized full prices.

Liverpool, Oct. 29.

We continue to have a steady demand for cotton; the sales to-day amount to 2000 bags, at full prices, 800 of which have been taken on speculation.

Oct. 25.—The sales to-day amount to 2500 bags, at full prices.

Sales at Havre, 24th ult.—Cotton, Louisiana, 15 a 1 10; Georgia, 98; Rice, 30 a 31; Coffee, Martinique, 1 22; Hayti, 1 50.

Still Later from England.

The Proprietor of the Baltimore Exchange Reading Rooms has received by the Packet of the 2d November at New York, information from Liverpool of a great advance in the price of bread stuffs. Wheat was as high as it had been at any other period since harvest. It was supposed that bonded wheat would be admitted free of duty in a short time.

A GREAT BARGAIN!!

In Lancaster county, Va., immediately bounding on the Chesapeake Bay, a very valuable Farm, consisting of 370 acres of land, is offered for sale at the very reduced price of eleven dollars per acre. There is some valuable white oak timber on the land, and large sea vessels may approach within forty yards of the shore. The exportation of timber and cord wood from said county to New York city, is highly recommended as a means of considerable speculation. Address "R. Y. S." or "B. A. C.", Nuttsville, Lancaster county, Va.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS GENERALLY.

The subscriber has on hand, ready for sale, a supply of his Cylindrical Straw Cutters, a machine he believes to be superior to any other in the world for that purpose. Brown's Vertical Wool Spinner, a very useful and simple machine for private family use, perhaps not equalled by any other. A full assortment of Gideon Davis' Patent Ploughs; the superiority of these over all other ploughs is so generally known, that to speak of their merit is unnecessary. A general assortment of highly improved Barshore Ploughs; Corn and Tobacco Cultivators; Patent Corn Shellers; Wheat Fans, warranted equal to any in the the state of their size; Harrows; Double and Single Swingle Trees; Shovel and substratum Ploughs; superior Caststeel Axes; Mattocks; Picks and Grubbing Hoes; superior Oil Stones and Points, and Heels, of all sizes for Davis' Patent Ploughs, always on hand. Blacksmith work and repairs done at short notice and at customary prices. The subscriber intends keeping no article for sale in his line, but such as will give satisfaction to his customers.

Orders received for Fruit Trees from Gray's Nursery. All orders received by mail (post paid,) will receive due attention.

JONATHAN S. EASTMAN,
No. 36 Pratt-st., opposite Marriott & Warfield's hotel.

N. B. Tough White Oak Butts, six feet long, and not less than eight inches diameter at the small end, large size quartered, will be received for work.

P. S. Agents for J. S. Eastman, where gentlemen can leave their orders.

Messrs. Jona. Alden, Philadelphia.
Barr, Auchincloss & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C. & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savanoah, Geo.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,
No. 4, Bowly's wharf.

Tobacco.--Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 8.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rappahannock 2.75 *a* 3.50—Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $8.00 *a* 9.00—superfine Howard-st. 7.25 *a* 7.75; city mills, 7.00 *a* 7.25; Susquehanna, 7.00 *a* 7.25—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.50 *a* 1.60—best white wheat, 1.60 *a* 1.75—ord'y to good, 1.30 *a* 1.50--Corn, old, .46 *a* .47—new corn, .43 *a* .45—in ear, bbl. 2.00 *a* 2.25—Rye, bush. .50 *a* .55—Oats .30 *a* .32—Beans .75 *a* 1.25—Peas .45 *a* .55—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, .25—bbls. .26 *a* .26½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Pork, 4.50 *a* 5.50—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—grouud, 1.25 bbl.; grass fed prime Beef, 4.50.

There was an advance in Flour and Grain yesterday, in consequence of advices from Liverpool up to the 2d of November; at present the market is very unsteady, but it is expected there will be a greater advance, if the last reports are corroborated.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

VETERINARY OPERATIONS.

The general practices to be here enumerated are chiefly the treatment of wounds, the application of fomentations, setons, blisters, clysters, and physicking; and the operations of castrating, nicking, bleeding, &c.

Treatment of Wounds.

A wound must be treated in some measure according to the part of the horse's body in which it happens; but there are some principles to be observed alike in all horse surgery. There are likewise a few, which, as they differ from the principles of human surgery, should be first noticed, and which should guide the practice of those who might be misled by analogy. The wounds of horses, however carefully brought together and confined in their situation, as well as shut out from the stimulus of the external air, are seldom disposed to unite at once, or, as it is called in surgical language, by the *first intention.* It is always, therefore, necessary to expect the suppurative process: but as the adhesive inflammation does now and then occur, we should never wash with water or other liquids a mere laceration, if no foreign matter, as dirt, &c. be suspected to be lodged within it, still less should we stuff it with candle or tents of any kind. On the contrary, it should be carefully and smoothly brought together, and simply bound up in its own blood; and if it do not wholly unite at once, and by the *first intention*, perhaps some portion of it may; and, at all events, its future progress will be more natural, and the disfiguration less than when stuffed with tents, tow, &c., or irritated with heating oils or spirits. When an extensively lacerated wound takes place, it is common, and it is often necessary to insert sutures, or stitches, into the lips of the wound: and here we have to notice another considerable variation from the principles of human inflammation, which is, that these stitches in the horse, ox, and dog, soon ulcerate out, seldom remaining longer than the third or fourth day at farthest. It therefore is the more necessary to be careful, that by perfect rest, and the appropriation of good bandages, we secure the wound from distortion. In this we may be assisted by strips of sticking plaster, made with diachylon and pitch: but these strips should be guarded from touching the wound itself by means of lint or tow first put over it. When, in addition to laceration in a wound, there is a destruction of substance, then the caution of washing will not apply, as it will be necessary to bathe with some warming spirit, as *tincture of myrrh, tincture of aloes*, or *friars' balsam*, to assist in restoring the life of the part, and in preventing mortification. Bleeding must be stopped by pressure and astringents, as powdered alum: when it is very considerable, the vessel from whence the blood comes must be taken up. When great inflammation follows wounds or bruises, counteract it by bleeding, a cooling temperature, opening medicines, and continual fomentation to the part itself.

Balls and Drinks.

Mode of giving a ball. Back the horse in his stall, and being elevated on a stool, (not a bucket turned upside down,) gently draw the tongue a little out of the mouth, so as to prevent its rising to resist the passage of the hand. The tongue should however not be laid hold of alone, but it should be held firmly by the fingers of the left hand against the jaw. The ball previously oiled, being taken into the right hand, which should be squeezed into as narrow a shape as possible, must be passed up close to the roof of the mouth, and the ball placed on the root of the tongue, when both hands being withdrawn, it will readily pass down. This mode is much preferable, when a person is at all handy, to using a balling iron. At Long's, veterinary surgeons' instrument maker, is sold a clever machine for this purpose.

Mode of giving a drink. Exactly the same process is pursued, except that a horn holding the liquid matter is forced up the mouth; the passage being raised beyond the level line, the liquid is poured out from the larger end of the horn, and when the tongue is loosened it is swallowed. Clark, however, ingeniously proposes to substitute the smaller end of the horn, the larger being closed, by which, he says, the horn can be forced up the mouth between the teeth, and poured farther back so as to insure its not returning.

Fomentations and Poultices.

Fomentations are very commonly recommended of various herbs, as rue, chamomile, St. John's wort, wormwood, bay leaves, &c.; but the principal virtue is to be found in warmth and moisture, which unload the vessels: but this warmth ought not to be too considerable, except when the inflammation is within, as in inflamed bowels. Here we foment to stimulate the skin, and cannot foment too hot; but when we do it at once to an inflamed part, it ought not to be more than of blood heat; and it should be continued long, and when removed the part should be dried or covered, or cold may be taken, and the inflammation increased instead of diminished. *Anodyne fomentations* are made of poppy heads, and of tobacco, and are frequently of great use.

The method of applying fomentations is conveniently done by means of two large woollen cloths wrung out of the heated liquors; as one is cooling the other should be ready to be applied.

Poultices act in the same way as fomentations in allaying irritation and inflammation; but are in some respects more convenient, because they act continually. It is an error to suppose that poultices, to be beneficial, should be very hot: however hot they may be applied, they soon become of the temperature of the surrounding parts. When poultices are applied to the extremities, a stocking, as has been before stated, is a convenient method of application. When it is drawn over the leg and bound around the lower part of the hoof, or of the pastern, or otherwise, the matter of the poultice may be put within, and it may be then kept in its situation, if high up on the extremity, by means of tape fastened to one part of it, and passed over the withers or back to the other side, and again fastened to the stocking. In this way, also, loose bandages may be retained from slipping down. *Cold poultices* are often useful in the inflammations arising from strains, &c. In these cases bran and goulard water form a convenient medium: but when the poultice is necessarily hot, a little linseed meal added to the bran will render it adhesive, and give it consistence. It is a very necessary caution in this, as in every instance where bandages are wanted around the extremities, to have them broad, and only so tight as to secure the matters contained, as in a poultice, or as in common bandaging. It is often supposed that "as strong as a horse," denotes that nothing can be too strong for him, nor any means too violent to hurt him. The horse, on the contrary, is one of the most tender animals alive; and a string tied very tight round the leg would occasion, first, a falling off of the hoof, next a mortification of the rest of the limb, and lastly the death of the animal; and all this as certainly as though he were shot with a bullet through the head.

Setons and Rowels.

Setons are often useful in keeping up a drain to draw what are termed humours from parts; or by their irritations on one part, they lessen the inflammation in another part not very remote, as when applied in the cheek for ophthalmia or inflamed eyes. They also in the same way lessen old swellings, by exciting absorption. Another useful action they have, is to make a dependent or convenient orifice for the escape of lodged matter: thus a seton passed from the upper part of the opening of poll-evil, through the upper part of the integuments of the neck, as low as the sinuses run, will often effect a cure without further application. The same with fistulous withers, which sometimes run under the shoulder blade, and appear at the arm point; in which cases a blunt seton needle, of sufficient length to be passed down to that point, and to be then cut down upon, will form the only efficient mode of treatment. Setons may be passed in domestic farriery, with a common packing needle and a skein of thread, or piece of tape: but in professional farriery they are made by a proper needle armed with tape or lamp cotton, or skeins of thread or silk smeared over with digestive ointment. When the seton needle is removed, the ends of the tape should be joined together, or otherwise knotted, to prevent them from coming out.

Rowels, in their intention, act as setons, and as irritating a larger surface, so when a general drain is required, they act better; as in grease, &c: but when their action is confined to a part only, setons are more convenient. Any person may apply a rowel, by making an incision in the loose skin about an inch, separating with the finger its adherences around, and then inserting in the opening a piece of round leather with a hole in the middle, smeared with a blistering ointment. Then plug the opening with tow, and in three days, when the suppuration has begun, remove it. The rowel leather is afterwards to be daily moved and cleaned.

Blistering and Firing.

Blistering answers the same purposes as setons; and is practised by first cutting or shaving the hair from the part, when the blistering ointment should be well rubbed in for ten minutes, or a quarter of an hour. Some of the ointment, after the rubbing, may be smeared over the part. The head of the horse should now be tied up to prevent his gnawing or licking. If a neck cradle be at hand it may also for safety be put on; in which case the head may be let down the third day.

A neck cradle for blistered horses is very convenient for other occasions also, when the mouth is to be kept from licking or biting other parts; or to keep other parts from being rubbed against the head. It is of very simple construction, and may be made by a dozen pieces of wood of about an inch and half diameter, as old broom handles, &c. These bored at each end admit a rope to be passed through; and as each is passed on, a knot may be tied to the upper part of the pieces of the cradle, two inches apart; and those which form the lower part, four inches: by which means the neck will be fitted by the cradle when it is put on, and the horse will be prevented from bending his head to lick or gnaw parts to be protected. When the lower parts of the legs, particularly of the hinder, require blistering, it is necessary to bear in mind that in gross full horses, particularly in autumn, grease is very apt to follow blistering; and almost certainly if the back of the heels below the fetlock be blistered.—First, therefore, smear this part over with lard or suet; and afterwards avoid touching it with the ointment. After blistering in summer, the horse is often turned out before the blistered parts are quite sound; in this case guard them from flies by some kind of covering, or they may become fly-blown: and likewise the fourth or fifth day rub into the blistered part some oil or lard, to prevent the skin from cracking.

Sweating or liquid blisters are only more gentle stimulants, which are daily applied to produce the same effects on a diseased part without removing the hair. Of course less activity is expected; yet as the action is repeated, they are often more beneficial even than blistering itself: as in old strains and stiffnesses.

Firing, as requiring the assistance of an experienced practitioner, we shall not describe; it will be only necessary to point out that it is a more active mode of blistering, and that it acts very powerfully as a stimulant, not only while its effects last as blisters do, but also after its escharotic effect is over, by its pressure; and in this way it is that it operates so favourably in bony exostosis, as splints and spavins; and in this way it is so useful in old ligamentary weaknesses; because by lessening the dilatability of the skin, it becomes a continual bandage to the part.

Clystering and Physicking.

Clystering should always be preceded by *back-raking*, which consists in oiling one hand and arm, and passing them up the fondament, and by that means to remove all the dung balls that can be reached. The large pewter syringe for clystering, is neither a useful nor safe machine. A much better consists in a turned box pipe, to which may be attached a large pig or ox bladder, by which four or five quarts of liquid can be administered at one time. The pipe should be previously oiled, by which means it passes more easily: the liquor should then be steadily pressed up; and when the pipe is removed, the tail should be held down over the fundament a little, to prevent the return of the clyster. In some cases of a spasmodic nature, as gripes and locked jaw, great force is made by the bowels to return the clyster, and nothing but continued pressure over the fundament can enable it to be retained. *Clysters* not only act in relaxing the bowels, but they may be used as means of nutriment when it cannot be taken by the mouth; as in locked jaw, wounds of the mouth, throat, &c. &c. In locked jaw, it was observed by Gibson, that he kept a horse alive many days by clysters alone: and by clysters also, many medicines may be given more conveniently than by the mouth.

Physicking of horses. It is equally an error to refrain altogether from giving horses physic, as it is to give it on every occasion, as some do. Neither is it necessary for horses to be bled and physicked every spring and autumn, if they be in perfect health, and the less so, as at this time they are generally weak and faint from the change going on in their coats. Nor is it always necessary to give horses physic when they come from grass or a straw yard; provided the change from the one state to the other be very moderately brought about. But on such a removal, it certainly expedites all the phenomena of condition, and such horses are less likely to *fall to pieces*, as it is termed, afterwards. In various morbid states physic is particularly useful, as in worms, hide-bound, from too full a habit, &c. &c. It is not advisable to physic horses in either very cold, or very warm weather. Strong physic is always hurtful: all that physic can do is as well operated by a mild as by a strong dose, with infinitely less hazard. No horse should be physicked whose bowels have not been previously prepared by mashing for two days at least before. By these means the physic will work kindly, and a moderate quantity only is requisite. Most of the articles put into the purging balls for horses, to assist the aloes, are useless. Jalap will not purge a horse, nor rhubarb either. Aloes are the only proper drug to be depended on for this purpose, and of all the varieties of aloes, the socotorine and Cape are the best: Barbadoes aloes are also not improper, but are thought more rough than the socotorine. Blaine gives the following as the process.

Physicking process. The horse having fasted an hour or two in the morning from food, but having had his water as usual, give him his purge, and two hours after offer him a little chilled, but not warm water, as is often done, by which horses are disgusted from taking any: it may be here remarked that in this particular much error is frequently committed. Many horses will drink water with the chill taken off, provided it be perfectly clean, and do not smell of smoke from the fire, kettle, or saucepan: but few, very few, will drink warm or hot water; and still fewer, if it be in the least degree greasy or smoky. After the ball has been given two hours, a warm bran mash may be offered, and a very little hay. He should have walking exercise as usual, moderately clothed: and altogether he should be kept rather more warm than usual. At noon mash again, and give a little hay, which should be repeated at night, giving him at intervals chilled water. On the following morning the physic may be expected to work; which, if it do briskly, keep the horse quiet: but should it not move his bowels, or only relax them, walk him quietly half an hour, which will probably have the desired effect. Continue to give mashes and warm water, repeating them every two or three hours to support him.—When physic gripes a horse, give him a clyster of warm water, and hand rub the belly as well as walk him out. If the griping prove severe, give him four ounces of gin in half a pint of sound ale, which will soon relieve him. On the next day the physic will probably *set*, but should it continue to work him severely, pour down some boiled starch; and if this fail, turn to the directions under diarrhœa. The horse should return to his usual habits of full feeding, and full exercise, by degrees; and if more than one dose be to be given, a week should intervene. It is often requisite to make the second and third doses rather stronger than the first. A very mild dose of physic is likewise often given to horses while at grass in very warm weather, and without any injury. When worms, or skin foulness are present, and mercurial physic is deemed necessary, it is better to give two drachms of calomel in a mash the previous night, than to put it into the purging ball.

Castration, Nicking, Docking, &c.

The operations of castration, docking, nicking, and that of cropping, (which is now seldom practised,) all require the assistance of a veterinary surgeon; and it is only necessary to remark of them, that the after treatment must be the same as in all other wounds. To avoid irritation, to preserve a cool temperature and a moderate diet; and if active febrile symptoms make their appearance, to obviate them by bleeding, &c. &c. It likewise is proper to direct the attention of the agriculturist who attends to these matters himself, that the moment the wound following any of these operations looks otherwise than healthy, locked jaw is to be feared, and no time should be lost in seeking the best assistance that can be obtained.

Bleeding.

Bleeding is a very common, and to the horse a very important operation, because his inflammatory diseases, on account of the great strength of his arterial system, run to a fatal termination very soon, and can only be checked in the rapidity of their progress, by abstracting blood, which diminishes the momentum of circulation. Bleeding is more particularly important in the inflammatory diseases of the horse; because we cannot, as in the human, lower the circulation by readily nauseating the stomach. Bleeding also lessens irritation, particularly in the young and plethoric, or those of full habit: hence we bleed in spasms of the bowels, in locked jaw, &c., with good effect. Bleeding is general or topical. *General*, as from the neck, when we mean to lessen the general momentum. *Topical*, when we bleed from a particular part, as the eye, the plate vein, the toe, &c. Most expert practitioners use a large lancet to bleed with; and when the habit of using it is acquired, it is by far the best instrument, particularly for superficial veins, where a blow might carry the fleam through the vessel. In common hands the fleam, as the more general instrument, is best adapted to the usual cases requiring the agriculturist's notice. Care should, however, be taken not to strike it with vehemence; and the hair being first wetted and smoothed down, it should be pressed close between the hairs, so that its progress may not be impeded by them. A ligature should be first passed round the neck, and a hand held over the eye, unless the operator be very expert, when the use of the fingers will dispense with the ligature. The quantity of blood taken is usually too small. In inflammatory diseases, a large horse, particularly in the early stage of a complaint, will bear to lose eight or ten quarts: and half the quantity may be taken away two or three times afterwards, if the violence of the symptoms seem to require it; and the blood should be drawn in a large stream to do all the good it is capable of. After the bleeding is finished, introduce a sharp pin, and avoid drawing the skin away from the vein while pinning, which lets the blood escape between the vein and skin: wrap round a piece of tow or hemp, and next day remove the pin, which might otherwise inflame the neck. In drawing blood, let it always be measured: letting it fall on the ground prevents the ascertaining the quantity; it also prevents any observation on the state of the blood, which, if it forms itself into a cup-like cavity on its surface, and exhibit a tough yellow crust over this cavity, it betokens an inflammatory state of the body that will require further bleedings, unless the weakness forbid. After the bleeding, it now and then happens, from rusty lancets, too violent a stroke with the blood stick, or from drawing away the skin too much while pinning up, that the orifice inflames and hardens, and ichor is seen to ooze out between its edges. Immediately this is discovered, recourse must be had to an able veterinary surgeon, or the horse will lose the vein, and perhaps his life.

FLORIDA.

Its Adaptation, even on its Northern Boundary, to the Production of Sugar.

Dear Sir: *Washington, Dec. 12th, 1828.*

I send you an extract from a letter just received from Z Kingsley, Esq. a planter on the St. Mary's river, which you know is the Northern boundary of Florida. As some reports have recently been made unfavourable to Florida, in regard to its adaptation to sugar planting, I beg you to publish in your useful journal this plain statement of a practical planter.

I am your most ob'nt servant,

J. S. Skinner, Esq. JOS. M. WHITE.

White Oak, St. Mary's, 25th Nov. 1828.

Hon. Jos. M. White.

Dear Sir: I am now here amusing myself with the practical success of my sugar boiling, which exceeds my expectation, both in quantity and quality. I have seen no New Orleans sugar equal to it: the juice from cane cut near the top rises to 11½° Baume, produced on the swamp land, below the level of high tide water mark; the pine land sugar juice rises to 13°. And I can do nothing without a steam engine; my ox power will only grind one acre per day, amounting to about 1½ hhds. besides molasses, upon which article I trust the new tariff duty will continue firm. If you can only succeed in obtaining a competent engineer, who will do his duty in having our inland navigation permanently deepened, the value of many of our lands will soon rise beyond the value of the sugar lands about New Orleans.

We have had no frost yet. If the weather continues I shall make sixty hhds. of sugar, besides molasses, from less than fifty acres. My rice turned out well, and hit the market. Cotton still dull. Your olive plants have not been forgotten, being now in a fair way, only waiting for conveyance.

[It would seem by the following that it is no longer a matter of speculation and experiment, but of fact and experience, that Florida will produce the sugar cane as abundantly as any part of this continent. It is allowed that it will ripen higher, and the juice granulate better than that of Louisiana.]

(From the Tallahassee Floridian.)

SUGAR CANE.

We have now in our office ten stalks of sugar cane, raised on the plantation of Dr. Weedon, the produce of a single joint, weighing *fifty and a half pounds*. There were originally fifteen stalks in the cluster. One had been previously cut, and four were left standing on account of their not being sufficiently matured. The weight of the whole, if left standing till December, would not have been less than 75 pounds.

The average number of joints in the ten stalks we have in our possession is twelve, though one has fourteen and another fifteen. What renders this more remarkable, is, that it was raised on land of a quality heretofore thought of little or no value.

Capt. Thos. Brown, residing twelve miles from this place, has also tried the experiment of raising cane on sandy land, and we are told that it is not surpassed, either in quality or luxuriance of growth by any in the country.

We think the present crop of cane sufficient to satisfy the most doubtful and timid of the capability of our Florida lands to produce, in abundance, the valuable staples of this climate.

We are happy to state also, that, from actual experiments, made by twn enterprising individuals in this vicinity, our marshes or ponds, which have been objects of such *terror* to some of our visiters, bid fair to become the most *valuable lands* in the territory.

The testy gentleman from the north, who was so much dissatisfied with our country, because *Dame nature* had neglected to bridge our rivers, causeway our marshes, &c. it is hoped will find leisure to pay us another visit. He will probably find reason to retract much that he said about us and our country on his return to the "source of wisdom and improvement," particularly the story of the *sand flies* and *moschetoes*, and of the *forty bushels of frogs* produced on a single acre, with *alligators* enough to fence it.

We assure him that they are becoming quite scarce in this section of country, particularly the latter animals, so much so, that it is a rare occurrence that any of us are actually devoured by them.

As to the orange and citron groves that he expected to find here, time and industry will soon give them a *real existence;* but emigrants who wait till then, must remember to bring their purses well stored with *cash*.

The most flattering accounts of the success of our planters, in the cultivation of this valuable staple, continue to be received. The most timid no longer doubt the capability of our soil of almost any quality to produce cane equal if not superior to the best Mississippi bottons.

The greater mildness of our climate, which must be obvious to all who have paid the least attention to physical geography, gives us great advantage over Louisiana, exposed, as it is, to the bleak winds from the western prairies, and subject to the chilling effects of the immense volumes of cold water discharged by the Mississippi till late in June, which on a moderate calculation retard vegetation two weeks later than with us.

It is a well known fact, that the frosts which occur on this coast, are generally produced by the chymical action of the dry north winds upon the low grounds of the south. Those districts, abounding in ponds and marshes, are consequently the most exposed to spring and autumnal frosts. Middle Florida, from its local situation, would therefore be expected to suffer less than any portion of the Union in the same latitude. In this experience and theory agree remarkably, as appears by the almost perennial verdure of our country.

We are happy to have it in our power to give from an authentic source, an account of the successful cultivation of cane, as it not only goes to confirm what we have heretofore said on this subject, but holds out anticipations of the future growth and prosperity of Florida, more flattering than the most sanguine have heretofore dared to make.

COMMUNICATED.

From an acre of land I have made 1800 lbs. of sugar. The grain is large, and its colour is a bright copper. Only eight joints of a cane were used, four being left for seed on every stalk. Indeed if all the cane, fit for sugar, had been manufactured, the quantity would have been increased one half, as one-third at least of the matured cane was reserved. One half of 1800 to be added, makes 2700, equal to two hogsheads and 700 lbs. of sugar from an acre.

The cane was planted 4½ feet apart, in consequence of being planted between cotton rows of that distance. If it had been planted three feet, the proper distance, one third more sugar would have been made, which added to 2700=3600. All planters agree that from 20 to 25 per cent. at least, is lost by the common wood-mill, in which my cane was ground, instead of the iron mill, which being added, makes from 4200 to 4500 lbs. that might have been produced, under the above mentioned circumstances from an acre.

This land was an Indian field, the site of old *Tallahassee*, and, from the appearance of the live oak stumps which are alone to be seen, it must have been in cultivation fifty or sixty years; and this is the fourth and best crop taken from it in as many successive years without manure, viz. one of corn, one Sea-Island cotton, and two of cane. From these facts there can be no question of the durability of our soil.
J. P. DUVAL.

N. B.—I had but one boiler, containing about 100 gallons, and in this alone I was able to make two barrels of sugar in 24 hours. With four boilers more of the same capacity, 8 hogsheads might have been made in that time, as my mill, worth $50, furnishes 100 gallons per hour. The expense of the boilers will not exceed $350, consequently the whole establishment for manufacturing three hogsheads of sugar every 24 hours, can be had for $400.

The process of manufacturing sugar is not at all difficult. Though I never saw a pound of sugar made in my life, I was completely successful, and believe that any one of my negroes is now able to make it of the best quality.

I intend to plant next season 85 acres of cane, which with my rattoon will give me 100 acres of cane to manufacture.
J. P. D.

THE AGRICULTURAL SOCIETY OF MOSCOW.

The Agricultural Society of Moscow, over which Prince Galitzin presides, and to which the late Emperor Alexander, soon after the conflagration of the capital, gave a considerable grant of land near Moscow, for the purpose of establishing a public farm, is said in the European journals to be going on very prosperously. It has already in its school upwards of *eighty pupils*, from various parts of Russia, and even from Kamschatka; and the journal of its proceedings has been so much in demand, that it has been found necessary to reprint the volumes of the two first years.

FAT OX.

A noble fat ox, raised in Worcester, Mass, by Governor Lincoln, came down the canal last week, and was sold at auction for *seventy-one* dollars.—The ox is to be exhibited on our shambles this day for sale. The finest roasting piece has, by order of Gov. Lincoln, been reserved for the Governor of this state. [*Prov. Jour.*

HORTICULTURE.

(From the New York Farmer.)

NEW-ZEALAND SPINAGE.

On the New-Zealand Spinage—by Michael Floy. *Addressed to the President of the New York Horticultural Society. Read Nov. 28, 1827.*

Sir,—I beg leave to present to the society, to be distributed among the members, fifty papers of the New-Zealand Spinage seed, *Tetragonia expansa.*—As the plant appears to be very hardy, it may be sown in the month of April, on a bed of good rich mould, two seeds in a hill, and each hill at the distance of from two to three feet; the latter is probably the best method, as it will spread, and soon fill the bed at that distance, and the leaves will be fit to gather for use during the whole summer, and until very late in the fall, a slight frost not materially injuring it. As it is very productive and much esteemed, it will no doubt be soon introduced into every garden. The seed was received last spring from France, by Doct. Hosack, President of the Society, and presented by him for distribution among the members. The package I received contained but two seeds, from the produce of which, I might have cut many messes. It also seems to stand the dry hot weather very well, and is in great perfection when vegetables are scarce, which is the case during the month of August. Perhaps the esculent vegetable needs very little recommendation, after the very high encomiums bestowed on it in the transactions of the London Horticultural Society; but we may also give our opinion. Its productiveness I fully assent to, and a mess of the greens was presented to the inspecting committee, who, last fall had it cooked, and found it to be very fine eating, and superior to the common spinage in every respect. It was more mildly flavoured, not having that rank taste of the common spinage, and as the leaf has a firmer and thicker consistency, does not shrink away so much; it has risen so much in the public estimation in Europe, that a mode of culture has been adopted to have it for use throughout the year, which may be done, and without any very extraordinary exertion. I would therefore beg leave to recommend the following mode of culture, to such as may think it worth while to have it in continual supply. I apprehend it would be necessary to have it in three crops; the *first crop* about the middle or latter end of February.

It is common with gardeners to make hot beds, for raising early York and other cabbage and lettuce. When these beds are made, a few smallest size pots may be filled with good mould. One or two seeds might be planted in each pot, and the pot plunged in the frame, which would require no other treatment but such as is given to the young cabbage and lettuce plants; and about the same time that the cabbage plants are fit to plant out, say the middle or latter end of April, the *Tetagronia* plants would also be fit to plant out, selecting a warm and sheltered border, well dug: each plant should be turned out with the ball of earth entire, and planted about three feet apart. It would be best to cover each hill with a bell glass during cold weather and frosty nights, until they are well established, and the danger of frost is over; they will then take care of themselves, with the ordinary cultivation and keeping down the weeds. The *second crop* may be sowed the latter end of April or beginning of May, and treated as before.

The *third crop* may be sown the last week in August or first week in September, in a sheltered place, and where the plants could be protected with common frames, the glasses of which should be put on at the appearance of frosty weather, and during the winter well covered with mats or straw. The plants of this sowing ought to be much thicker; a foot apart from plant to plant, would be most eligible, the object being to have an abundant supply in as small a compass as possible; they would not grow very much in the winter. By this mode of culture, which, if adopted, is not very difficult, a supply, I apprehend, would be kept up during the whole year. I need not inform the practical gardener, that in very severe weather it might be necessary to have a good lining of hot stable dung kept around the frame, and adding fresh, when necessary; although it may turn out to be much hardier than we are aware of, yet practice in its cultivation can only determine this, it being rather a stranger with us at present.

As I feel pretty confident it will be found to rise in our estimation with acquaintance, and prove a valuable addition to the stock of culinary vegetables of our markets, I therefore feel a pleasure in bringing it forward to the notice of the society.

I beg leave to apologize for being thus particular in treating of its mode of culture, knowing as I well do, that the New York Horticultural Society contains among its members, men of the first respectability and skill in horticulture. My intrusion of these remarks might be thought to be superfluous; but some of its members may think it useful, and if any thing I advance might tend to the promotion of horticulture generally, or the public good in particular, I shall be much gratified.

With sentiments of esteem and respect,
I remain, sir, your obed't serv't,
MICHAEL FLOY.

David Hosack, M. D. President of
the New York Hort. Society.

Note by the Editor of the Southern Agriculturist.

The New-Zealand Spinage is certainly a great addition to our list of culinary vegetables. We have here given the method of cultivation recommended in New York. Having it under cultivation two seasons, we are enabled to speak of it from our own observation, and we certainly concur in the encomiums bestowed on it. In a subsequent number, and in time for those to benefit by it, who may wish to cultivate it, we will give our experience on the subject.

(From the New York Evening Post.)

HORTICULTURAL SOCIETIES.

We are glad to observe that these useful institutions are multiplying over the country, and that now the political storm is over, the activity and zeal of our citizens are turned to the improvement of husbandry. A meeting of gentlemen from the several counties of Onandaga, Cayuga, Seneca, Tompkins, Ontario, Wayne, Yates, Monroe, Livingston, and Genessee, has lately been held at Geneva, for the purpose of forming a "Domestic Horticultural Society for the Western part of the State of New York." The vice-presidents and committee of managers are selected, one from each of these counties. Myron Holly delivered a discourse, previous to the organization of the society, which will be published. The officers of the society have been chosen from among gentlemen of the highest respectability in that part of the state. The Geneva Gazette, speaking of the institution, says—

"The countenance which this society has received in its origin, from men of acknowledged acquirements and of extensive influence, gives an earnest of success, cheering to its projectors, and which promises lasting benefits to this section of our state. A project, so honourable in its character, so laudable in its object, and so auspicious in its commencement, cannot fail of final and complete success."

THE MULBERRY.

Extract to the Editor, dated Maine, Nov. 28, 1828.

In J. B's communication on forest trees, in your last, he says, speaking of mulberries, "I have hundreds, the seeds of which were sown in the spring of 1806." Does he mean 1826? If so, they are a long time in growing to the size suitable for a hedge. I had an idea of planting some for that purpose, but if they are so long acquiring a proper height, I shall plant something else.

KEEPING APPLES.

When there is a frost, all that you have to do is to keep the apples in a state of total darkness, until some days after a complete thaw has come. In America they are frequently frozen as hard as stones; if they thaw in the *light*, they rot; but if they thaw in darkness, they not only do not rot, but lose very little of their original flavour. This may be new to the English reader; but he may depend upon it that the statement is correct.

[*Cobbett's English Gardener.*

INTERNAL IMPROVEMENT.

[☞ The last Report of the Postmaster General, like those which have preceded it from the same pen, is remarkable for its brevity and comprehensiveness. In a few short paragraphs, he explains clearly the state of his department, whose operations spread over a twentieth part of the earth, affording to the correspondence of twelve millions of people, the utmost expedition and security. To superintend, from a central point, more than ten millions of miles of transportation, and more than twenty thousand agents; and to have the whole system so nicely adjusted, as to preserve the regularity without diminishing the velocity of its motions, requires, not merely uncommon ability to endure labour, but extraordinary endowments and capacity for business; whereof a knowledge of mankind to select efficient agents, and energy in the enforcement of their duties, are not the least important.

Inertness and incapacity at the head of the Post Office department, would now be grievously felt through every ramification of society. For its present administration, as for good health, we ought to be grateful every day, nor wait to be reminded of its value until threatened with its loss.]

REPORT OF THE POST MASTER GENERAL.

Post Office Department, 17th Nov. 1828.

The Post Master General has the honour to submit to the President of the United States the following statement, shewing the gradual increase and present condition of the Post Office Department.

There were	*Post Offices.*	*Revenue.*	*Miles of Post Roads.*
In 1792	195	$67,414	5,642
1797	554	213,998	16,180
1802	1114	327,045	25,315
1807	1848	478,763	33,755
1812	2610	649,208	39,378
1817	3159	1,002,973	52,089
1823 e'g July 1,	4498	1,114,344	82,763
1828	7651	1,598,134	114,536

The above exhibit shows an augmentation of annual revenue within five years, ending 1st July, 1828, of $483,790, a sum exceeding by $18,654 a similar increase for eleven years preceding 1823, and falling short only $165,418, of being equal to the total revenue of the Department in 1812.

Within the same time there have been established 3,153 additional post offices; being a greater number than was in operation in the United States in the year 1815.

From the most accurate calculation that can be made for the year ending the 1st July, 1823, the mail was transported in stages four million four hundred and eighty-nine thousand seven hundred and forty-four miles; and on horseback, five million five hundred and eleven thousand four hundred and ninety-six miles; making a total transportation of ten millions one hundred thousand two hundred and forty miles annually. Since that period there has been added a transportation of one million nine hundred and forty-nine thousand eight hundred and fifty miles annually in stages; and on horseback one million six hundred and fifty-eight thousand nine hundred and forty-nine miles; making an increase of three millions six hundred and eight thousand eight hundred and forty-nine miles, which adds two hundred and seventy-five thousand and fifty-three miles, more than one-third, to the mail establishment of the country, in 1823. And the augmented stage conveyance falls short only two hundred and ninety-five thousand and twenty-two miles of being equal to one half of the entire stage transportation in the Union at that time. This extension of the mail has been accompanied by great increase of expedition on almost all the important routes. On many of them it is now conveyed at the rate of one hundred miles a day.

As Congress at their last session declined making any appropriation of the surplus funds of the Department, with the expectation, as was believed, that they should be applied in diffusing mail facilities throughout the Union, and increasing them where required by the public interests, an augmentation to the conveyance of the mail of five hundred and thirty-seven thousand two hundred and sixty-four miles in stages, and two hundred and sixty-one thousand seven hundred and four miles on horseback; making a total of seven hundred and ninety-eight thousand nine hundred and sixty miles, has been made the past year. This, with the additional compensation to postmasters, arising from increased receipts, the accumulation of free letters, for which two cents each are paid, and incidental expenses, has added to the expenditures of the Department within the year, the sum of $250,094 46. The augmented revenue of the Department since the 1st of July, 1823, has been sufficient to meet the annual expense incurred by the increase of mail facilities, and leaves the sum of $187,302 52 unexpended.

It is believed to be good policy to keep the funds of the Department actively employed in extending its operations, until the reasonable wants of every community shall be supplied. By withdrawing mail accommodations from all unproductive routes, and substituting a horse for a stage transportation on many others, a very large surplus of funds would annually accumulate; but the public convenience would be greatly lessened, and the means of information withheld from districts of country but sparsely inhabited. There is no branch of the Government in whose operations the people feel a more lively interest than in those of this Department; its facilities are felt in the various transactions of business, in the pleasures of correspondence, and the general diffusion of information. In the course of every year, no inconsiderable amount of the active capital of the country, in some form or other, passes through the mail. To connect important places by frequent lines of intercourse, combine speed with all the security possible, and extend the mail wherever it may be wanted, constitute the objects which have influenced the policy of the Department

It may be advantageous to the public and the Department, at some future time, for it to become the insurer of monies transmitted in the mail, being authorized to charge a higher rate of postage in such cases, to indemnify for the risk incurred. To guard against frauds, this responsibility must necessarily be limited to packets mailed at the principal offices, under such regulations as shall afford the greatest possible security.

Some pains have been taken to ascertain the exact number of persons employed by the Department, including Postmasters, Assistant Postmasters, Clerks, Contractors, and persons engaged in transporting the mail, and although only partial returns have been received, it is believed the total number is about twenty-six thousand nine hundred and fifty-six. There are about seventeen thousand five hundred and eighty-four horses employed, and two thousand eight hundred and seventy-nine carriages, including two hundred and forty-three sulkies and wagons.

The receipts of the year ending 1st July, 1828, as above stated, amounted to the sum of - - -		$1,598,134 43
Those of the preceding year were		1,473,551 00
Making an increase of this sum above the receipts of 1827, -		124,583 43
The expenditures of the year ending 1st July last, amounted to the sum of - - -		1,623,333 40
Leaving an excess of expenditure beyond the receipt of - -		25,199 03
In this excess there is not included the sum of $12,729 24, which was paid by the Department under a special act of Congress.		
By the last annual report there was a surplus sum of money in deposit and due from Postmasters, including judgments obtained on old accounts, amounting to -		370,033 37
From this sum deduct the above excess of expenditure,	25,199 03	
And the amount paid into the Treasury, under the above law,	12,729 24	
		37,928 27
Leaving this amount of surplus,		$332,105 10

JOHN M'LEAN, *Postmaster General.*

MIAMI CANAL.

In consequence of a breach in the bank of the canal, between Dayton and Middletown, we have not yet had the gratification of witnessing the arrival of any boats from the former place. We are informed that the damage will be repaired in a few days, when the canal will be navigable in its whole extent. At present, the business of the canal is rapidly increasing. The boats employed on it, notwithstanding that their number has been supposed by many to be too great, arrive and depart with full freights; and we believe that the amount of transportation rather exceeds than falls short of the calculations of the friends of the canal system.

[*Western Tiller.*

The amount of toll paid this year up to the first day of November, to John B. Staats, Esq., collector at Albany, is one hundred and forty-two thousand eight hundred and twenty-three dollars.

Persons can now travel, by the ordinary means of conveyance, from New York city to Detroit, a distance of 750 miles, in four days aod a half!

LADIES' DEPARTMENT.

DEVOTION.

A Philadelphia paper gives the following beautiful description of the influences of genuine devotion, from a discourse lately delivered by the Rev. Mr. Furness, of that city.

"True devotion, like the being whom we worship, is visible only in its effects; in the activity which it prompts us to develop, or the benevolent affections it urges us to exercise. Its existence is proved, not by its being brought forward in its own shape, but by the diligence and uprightness that it aids us to exhibit. Like the rain that cometh down from heaven, which first hides itself in the bosom of the earth, and then is seen no more, until verdure springs up where it had fallen, the fresh and beautiful witness of its influence, religious feeling proves its genuineness and vitality, not by a direct demonstration, but by the beauty in which it clothes the life, the purity it imparts to the lips, the energy and usefulness it gives to the whole character. To carry the illustration still further, it is not those religious emotions that are the most violent, that, rushing down with the transient fury of a summer's shower, pass off and evaporate without satisfying the parched soil: it is not this kind that is the most acceptable; it is rather that species of religious sensibility that is gentle but uniform; that, like the faithful dews of every morning, refreshes wherever it is found."

CHYMICAL EXPERIMENT.

A new Fire-Screen for the Ladies.—Draw a landscape on paper with common Italian ink, representing a winter scene, or mere outline; the foliage to be painted with moriate of cobalt, (green,) muriate of copper, (yellow,) and acetate of cobalt, (blue,) all which colours dry in invisible; but on the screen being held near the fire, the gentle warmth will occasion the trees, flowers, &c. to display themselves in their natural colours, and winter is magically changed to spring. As the paper cools, the colours disappear; and the effect may be repeated as often as desired.

(From the Forget-Me-Not.)

TRUTH, YOUTH, AND AGE.

AN APOLOGUE.

By Charles Swain, Esq.

Truth. What is Immortality?
Youth. It is the glory of the mind,
The deathless voice of ancient Time;
The light of genius—pure—refined!
The monuments of deeds sublime!
O'er the cold ashes of the dead
It breathes a grandeur and a power,
Which shine when countless years have fled,
Magnificent as the first hour!

Truth. What is Immortality?
Age. Ask it of the gloomy waves,
Of the old forgotten graves,
Whereof not one stone remains;
Ask it of the ruin'd fanes,
Temples that have pass'd away,
Leaving not a wreck to say
Here an empire once hath stood!
Ask it in thy solitude,
Of thy solemn musing mind,
And, too truly, wilt thou find,
Earthly immortality
Is a splendid mockery!

SLEEP.

Impartial as the grave,
Sleep robs the cruel tyrant of his power,
Gives rest and freedom to the o'er-wrought slave,
And steals the wretched beggar from his want.

SPORTING OLIO.

JENNY CAMERON.

J. S. Skinner, Esq. *Oatland Mills, Va. Dec. 8, 1828.*

Sir,—I send you the following for publication, should you think it merits it.

Jenny Cameron, foaled April 6th, 1783, was got by Col. Lloyd's Traveller, who was got by Morton's Traveller on Colonel Taylor's imported mare Jenny Cameron. Jenny Cameron's dam Kitty Fisher was got by King Herod; Herod by old Fearnought, out of the imported mare Kitty Fisher, her dam by Jolly Roger.

Nancy Dawson, foaled 22d April, 1783, was also got by Col. Lloyd's Traveller, whose pedigree is above. Her dam, Phillis, got by Fearnought on a celebrated mare belonging to Col. Baylor got by his famous imported horse Sober John.

I certify the above to be a true copy,
17th Sept. 1785. WM. SCOTT

I owned the above mare Jenny Cameron after she was twenty years old. She brought me two colts by Mufti, imported by the late Col. Taylor, of Washington city. Better horses I never would wish to own. The mare, after being rode seventy miles a day, bore as hard upon her bit as if she had have travelled but five miles; her spirit was unconquerable.

Respectfully, yours,
GEORGE CARTER.

(From the Hunting Directory.)

HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound.—Of the Size, Colour, and Breeding of Hounds, &c.

(Continued from page 310.)

The stag-hounds, which, about forty years since, were used by George III. manifested a considerable degree of affinity to the Talbot. In many of what are called the southern-hounds, we have a tolerable picture of the Talbot, only that the animal is much smaller. Mr. Charlesworth, who keeps the Black Swan Inn, Shude Hill, Manchester, has, at this time, (1826) a hound, which in height measures twenty-seven inches, and every way answers the description of the Talbot, as nearly as possible.

Something of the Talbot kind was in use amongst the Greeks, as may be gathered from the following description of the dog of Ulysses:—

"He knew his lord, he knew, and strove to meet;
In vain he strove to crawl and kiss his feet;
Yet all he could, his tail, his ears, his eyes,
Salute his master and confess his joys.
O had you seen him vigorous, bold, and young,
Swift as a stag, and as a lion strong:
Him no fell savage on the plains withstood,
None scap'd him bosom'd in the gloomy wood.
His eye how piercing, and his scent how true,
To wind the vapour in the tainted dew:
This dog, whom fate thus granted to behold
His lord, when twenty tedious years had roll'd,
Takes a last look, and having seen him, dies,
So closed for ever, faithful *Argus'* eyes.
Then pity touched the mighty Warrior's soul,
And down his cheek a tear unbidden stole."—Pope.

As I have already hinted, there is strong reason to believe the Normans first introduced the Talbot or blood-hound into this kingdom; and some centuries afterwards they were used on the borders of England and Scotland, which were then much infested by robbers, and also by murderers. The dogs were maintained by a tax upon the inhabitants, though individuals were no doubt privately possessed of them. In Scotland, a law existed, that no person should deny entrance to these dogs when in pursuit of stolen goods, upon pain of being deemed an accessary. Persons called *Moss Troopers* were pursued by hounds of this description. These robbers generally retired with their plunder through mosses (morasses), bogs, and *sloughs*, which were passable only to those acquainted with the various intricate paths by which alone these places could be crossed by a human being. This peculiar pursuit was distinguished by the name of *Hot-trod*, and the dogs were sometimes called *slough*-hounds and *sleuth*-hounds, as well as blood-hounds.

——————————"Upon the banks
Of Tweed, slow winding through the vale, the seat
Of war and rapine once, ere Britons knew
The sweets of peace, or Anna's dread commands
To lasting leagues the haughty rivals aw'd,
There dwelt a pilfering race, well train'd and skill'd
In all the mysteries of theft, the spoil
Their only substance, feuds and war their sport:
Veil'd in the shades of night, they ford the stream,
Then, prowling far and near, whate'er they seize
Becomes their prey; nor flocks nor herds are safe,
Nor stalls protect the steer, nor strong-barr'd doors
Secure the favourite horse. Soon as the morn
Reveals his wrongs, with ghastly visage wan
The plunder'd owner stands, and from his lips
A thousand thronging curses burst their way:
He calls his stout allies, and in a line
His faithful hound he leads, then with a voice
That utters loud his rage, attentive cheers:
Soon the sagacious brute, his curling tail
Flourish'd in air, low bending plies around
His busy nose, the steaming vapour snuffs
Inquisitive, nor leaves one turf untried,
Till conscious of the recent stains, his heart
Beats quick! his snuffling nose, his active tail,
Attest his joy; then with deep opening mouth,
That makes the welkin tremble, he proclaims
Th' audacious felon; foot by foot he marks
His winding way, while all the listening crowd
Applaud his reasonings. O'er the watery ford,
Dry sandy heaths, and stony barren hills,
O'er beaten paths, with men and beasts distain'd,
Unerring he pursues; till at the cot
Arriv'd, and seizing by his guilty throat
The caitiff vile, redeems the captive prey:
So exquisitely delicate his sense!"

The chieftains and great men, who resided on or near the borders of the two kingdoms, some centuries ago, encouraged, rather than repressed, the depredations which were here committed; and in which, indeed, themselves occasionally joined.

Admitting, therefore, that the Talbot was the source whence have sprung all our present varieties of the hound tribe, we may regard as the first remove, that large dog used a century ago in the pursuit of the stag, and which it is well known, would perseveringly continue the chase of the hunted deer in defiance of any obstacle, and even through a herd of the same animals.

(To be continued.)

(From Bell's Life in London.)

TROTTING.

Grand Trotting Match for 500 *Sovereigns.*—A match has been made by a gentleman in the city, to find a horse once within a month to trot 40 miles in three successive hours, in harness. One hundred pounds a-side has been deposited in the hands of Mr. Pledger, of Moorgate, and the whole of the money will be posted after a sporting dinner at the same house on the 28th instant, when the time of starting will be arranged.

Trotting at Newmarket.—After the races on Wednesday, a novel scene for Newmarket took place. Two gentlemen, well known on the turf, made a trotting match for a considerable sum; the one to drive his horse 12 miles, taking a companion in the gig weighing 18 stone, in the same time the other should trot his pony (saddle,) 11 miles. They started from the 61st mile stone on the Barton-mills road, and proceeded to the 67th, the horse leading all the way; the pony, however, got to the 62d mile stone, in returning, by the time that the horse in harness had passed it about a minute and twenty seconds, winning the match cleverly by nearly three quarters of a mile. The horse broke, and backed his wheel three times, or the match would, probably, have had a different termination; the miles were done as near to four minutes each as possible. The betting was heavy.

CANINE FANCY.

Bobby and Boxer.—This match came off on Tuesday, at the New Inn Pitt, when Bobby, after a severe battle of thirty-five minutes, was for the first time beaten. He went in twice, but refused on the third offer. The betting was six to four on Bobby, and large sums changed hands, the Paddington folks dropping rather severely. Some doubts are entertained that all was not fair towards Bobby.

The white bitch Nettle, recently defeated at Birmingham, has been matched against a black bitch of the same name, for 20 pounds a-side, to fight on Wednesday fortnight, at the New Inn Pit, Tottenham-court road.

A match will be fought at the Westminster Pit, on Tuesday next, for ten sovereigns, between two famous bitches of 22½ lbs. each. One is a mealy tanned, named Rose, (the property of a gentleman,) called the Pimlico bitch. The other a black and tanned, named Venham, late in the possession of Mr. Cobb, of Westminster, got by the famous Surrey black and tanned dog Pincher.

PIGEON SHOOTING.

The following is the total number of pigeons killed, missed, and shot at, at the Red House, during the last season:

	Killed.	*Missed.*	*Total shot at.*
May,	2254	1932	4186
June,	5396	4385	9781
July,	1114	989	2103
Total,	8764	7306	16,070

The total number killed this season has been less than on any former one, in consequence of there having been so many double shots fired; but the single surpass any former season.

PEDESTRIANISM.

A lad, named Wm. Barclay, has been astonishing the good folks of Havant, in Hampshire, by his extraordinary pedestrian powers. He is but nineteen years of age. On Friday week he ran barefoot, on the turnpike road, ten miles in 58¾ minutes; and on the next day he walked, fair toe and heel, seven miles within the hour. On Monday last he walked ninety-five miles within twenty-four hours; and after he had finished this task, he was challenged by John Tees, a cattle-jobber, to walk a hundred miles with him for 5*l.*, Tees to walk forward and Barclay backward. The match was instantly made, and on Wednesday both started; but, after going thirty-five miles, and Barclay having considerably the start, Tees declined going further, and lost the match. Much credit is due to the inhabitants for the decorum and regularity which was preserved during the contest.

MISCELLANEOUS.

METEOROLOGY.

Sandy Spring, Montgomery county, Md.
J. S. Skinner, Esq. *Dec. 8, 1828.*

Sir,—Enclosed are two meteorological tables—one of water, and another of air, taken at this place.

Table No. 1.

Of the temperature of Springs and Wells in the vicinity of, and including Sandy Spring, Montgomery county, Maryland, nearly on the meridian of Washington city, at an elevation of about 500 feet above high tide in the Bay of Chesapeake, N. lat. 39° 7'—taken Dec. 4th and 5th, 1828.—Mean temperature of the atmosphere, 38° Fahrenheit, very nearly.

Sandy Spring, on the farm of Edwd. Stabler,		58°
Spring on do. do.	No. 2,	57
Do. do. do.	No. 3,	55
William Thomas' well,		54
Bernard Gilpin's well,		54½
Caleb Bentley's spring,	No. 1,	56
Do. do.	No. 2,	54
Wm. H. Stabler's well,		55
James P. Stabler's well,		54¾
Roger Brooke's well,		54
Do. spring,	No. 1,	53¾
Do. spring,	No. 2,	54¼
Hannah Brigg's well		53½
Mahlon Chandlee's spring,	No. 1,	54
Do. spring,	No. 2,	54¼
Edward Porter's spring,		54¾
William Darby's spring,		54¼
Mean,		54.72

Remarks.—It will be seen by reference to the table inserted in the Farmer, vol. 10, page 286, that the mean temperature of springs and wells in this vicinity, has fallen in the last month, 53-100ths of a degree of Fahrenheit.

Table No. 2.

Of mean temperature and prevalent winds, from November 7th to 30th inclusive, 1828, at Sandy Springs, Montgomery county, Md.—taken at the same place as No. 1.

Days.	*Mean.*	*Wind.*	*Weather.*
7	49	S. E.	Clear and fine
8	56 1-3	S. E.	do.
9	40	S. E.	White frost
10	42 2-3	S. E.	Clear and fine
11	46 1 3	N. W.	Rain in the morning
12	36 1-3	N. W.	Smoky, with cirro-cumulus
13	37 1-6	S. E.	High wind, and rain
14	36 2 3	N. E.	Nimbus, with snow.
15	36 2-3	N W.	Wind brisk, with cumulus
16	37 2-3	S. W.	Cumulus
17	35 1-3	N. W.	Ditto, hazy
18	32	S. E.	Nimbus, with snow and ice
19	40 1-3	S. W.	Ditto, with mist
20	42 2-3	N. W.	Ditto, with rain
21	41 2-5	N. W.	Cirrus, fine
22	42 3 4	E.	Rain in the morning
23	40 1-2	N. W.	High wind
24	39 2 3	N. W.	Frost and ice
25	38 2-3	N. W.	Clear and fine
26	37	S. W.	Frost and ice
27	48 2-3	S. E.	Heavy cumulus
28	60½	S. W.	Slight rain
29	43	N. W.	High wind
30	40	N. W.	Heavy cumulus.

Mean, 40° Fahrenheit, very nearly.
Highest, 62 Mid-day of the 8th.
Lowest, 24 Morning of the 13th; ice on standing water nearly an inch thick.

NOTES.

As it is my intention to continue, as long as practicable, a regular series of these tables, it may be well to append to the present paper, an explanation of some necessary abbreviations, and definition of terms.

Abbreviations.

s. r. sun-rise—*s. st.* sun-set—*cir.* Cirrus—*cir. cmls.* Cirro-Cumulus—*str.* Stratus—*cir. str.* Cirro Stratus—*cmls.* Cumulus—*cmls. tr.* Cumulo stratus—*nbs.* Nimbus—*day*, for, in the day time—*mg.* morning—*night*, for, in the night time—*evg.* evening.

Definitions.

Cumulus.—Large irregular masses of clouds, like volumes of smoke, or distant mountains, having generally a flattened base.

Cirrus.—Curl cloud. This form is that of the highest clouds in the atmosphere, having often the appearance of hair, and never moving rapidly.

Cirro-cumulus.—A mixture of the two preceding; or, more correctly, two distinct strata of clouds, frequently moving in opposite directions, and often with a most elegant curdled aspect.

Cirro-stratus.—Distant clouds formed into thin narrow continuous strata, lying horizontally.

Stratus, or the Fall cloud, is a dense fog reaching the surface of the earth.

Nimbus.—Is the ultimate form of clouds, when they have coalesced into one dark impervious mass, overspreading the heavens, and descending in rain, snow or sleet.

In future, I shall note at the bottom of my tables the days on which the moon changes, fulls, and quarters, in order to detect any coincidence, if any exists, which I doubt, between the phases of that planet and the revolution of the earth's atmosphere. WILLIAM DARBY.

A Shower of Herrings!—A remarkable, though not unprecedented, occurrence, happened on Monday last in the neighbouring county of Ross. As Major Forbes Mackenzie of Fodderty, in Strathpeffer, was traversing a field on his farm, he was not a little surprised to find a considerable portion of the ground covered with herring fry, of from three to four inches each in length. The fish were fresh and entire, and had no appearance of being dropt by birds—a medium by which they must have been bruised and mutilated. The only rational conjecture that can be formed of the circumstance is, that the fish were transported thither in a water-spout—a phenomenon that has before occurred in this county, and which is by no means uncommon in tropical climates. The frith of Dingwall lies at the distance of three miles from the place in question; but no obstruction occurs between the field and the sea—the whole is a level strath, or plain,—and waterspouts have been known to carry even farther than this. Major Mackenzie has forwarded a small quantity of the fish to the secretary of the Northern Institution. We have just inspected them, and can assure our readers, that though the fry would go but a small way towards satisfying a few hungry *gillies*, they will abundantly gratify the curiosity of every visiter. [*English paper.*

As an instance of extraordinary tenacity of muscular life in some of the fish tribes, a gentleman lately returned from the Highlands informs us, that while fishing for whiting, he caught a large dog-fish, (a species of shark,) which, from its ferocity and struggles, had to be decapitated before the hook could be extracted. The head being completely severed from the trunk, the gentleman thought there could be no cruelty in disembowelling it, in order to see whether or not such a voracious creature had been devouring the more helpless tenants of the deep. Accordingly, the abdomen was laid open, and the stomach being ripped up, was found empty. The trunk was laid down in the boat, wallowing in its own entrails, and as there was a scarcity of bait, it was partly skinned, and several oblong cuts taken from the most muscular part, and put on the hooks; notwithstanding such cutting and mangling, and at least one hour and three quarters after the trunk was headless, he (upon being touched) smashed violently the bottom of the boat with his tail. The head also, after being separated, retained life for a considerable time, and frequently snapped at any finger which was thrust into its mouth.

[*Paisley Advertiser.*

Interesting fact stated before the Merrimack (New Hampshire) Agricultural Society, October 15, 1825. "Lieutenant Amos Abbot, of Concord, owns part of the hill where our State Prison stones are quarried. The whole of this hill was considered by the old proprietors of that town as of little value—and I believe the sections owned by Mr. Abbott cost him less than fifty cents per acre.

"In July, 1823, he sold from his tract a single rock in its native state for $105. Mr. Parker, the purchaser, sold it rough split, in the yard of our State Prison, to the Warden, for $1300, who realized for it in Boston, $6,129. This single rock made 10,500 feet of facing stone and ornamental work—and the aggregate weight of all the blocks (smooth hewn) was 550 tons, it having lost only 50 tons in being prepared for the market, after it was brought to the prison yard.

Painting Houses. A writer in the New England Farmer says, it has been proved by repeated experiments "that a house painted late in autumn or in winter, will hold the paint more than twice as long as one painted in warm weather." And he gives as a reason, that in cold weather the oil and other ingredients form a hard cement, whereas in warm weather the oil penetrates into the wood and leaves the other parts dry so that they crumble off. This is a subject worthy the attention, as the expense of keeping them well painted has hitherto been a serious inroad upon the purse.

The Toad.—It has been frequently observed that this reptile has been found in situations which must preclude the possibility of its existing by the ordinary means of air and food. That this is a fact has been fully demonstrated by the following circumstance:—A person of Highworth found, on the 20th of May, 1826, a small toad in his garden, which he took and inclosed in a common garden pot, so as to render it air tight, and buried the same in the ground. On the 14th of May, 1828, he, in the presence of a friend, examined the prison of the captive, when he found its solitary inmate not only alive, but hearty, and apparently in a thriving condition, as it had grown very considerably, and the lustre of its beautiful eyes appeared to be not a whit diminished by its long incarceration.

British Iron Trade.—By a statement in a late English paper it appears that nearly 700,000 tons of iron are made every year in Great Britain—valued at 6,297,000 pounds sterling. In making this estimate of the value of the trade, the writer merely takes into account the coarser kinds of the article. Undoubtedly the finer manufactures of Sheffield and Birmingham, if added to the above, would greatly swell the amount. This immense sum is derived, it is affirmed, from the minerals of Great Britain alone—no foreign ingredient whatever being employed in the manufacture—and, what is equally creditable to the character of the iron trade of that country, almost the whole amount of the money thus obtained, is distributed among the artizans engaged in that business. [*Boston Bulletin.*

STATISTICS.

In the notice of the work of M. Balbi, called "*The Political Balance of the Globe*," which we find in the *Journal des Debats* of the 27th September, the following tables are extracted, purporting to shew the power and resources of the principal nations of the civilized world, as compared with their respective population:

Proportion between the amount of Revenue and Population.

United Kingdom of Great Britain and Ireland, for each inhabitant, about	$13 00
France,	6 00
Netherlands,	5 1-5
Prussian Monarchy;	3 1-2
United States of America,	2 2-5
Empire of Austria,	2 1-10
Empire of Russia, excluding Poland,	1 1-5

Proportion between the amount of Debt and Population.

United Kingdom of Great Britain and Ireland, for each inhabitant, about	$174.00
Netherlands,	127.00
France,	29.00
Austria,	9 00
United States of America,	7.00
Prussia,	5 9-10
Russia, excluding Poland,	4 1-12

Proportion between the Army and the Population.

	Inhabitants.
Russia, without Poland, one soldier for every	57
Prussia,	80
Austria,	118
France,	138
Netherlands,	142
Great Britain and Ireland,	229
United States of America,	1977

Proportion of the Naval Force to the Population.

	Inhabitants.
Great Britain and Ireland, one line of battle ship or frigate, to	82,979
Sweden and Norway,	154,640
Netherlands,	170,566
France,	299,909
United States of America,	316,000
Russia, without Poland,	700,000
Austria,	2,909,091

This is a curious, and not uninteresting view of the various powers enumerated; and if the same accuracy be evinced with regard to the other calculations, which is exhibited in those relating to the United States, it must be deemed authentic.

TEMPERANCE.

A society for the promotion of temperance, has been formed at Glastenbury, in Connecticut. A meeting was held on the 29th ult. and resolutions adopted to regulate the conduct and practice of its members. They declare their belief that the moderate use of ardent spirits is, for persons in health, not only unnecessary, but injurious; that it is the cause of intemperate appetite and habits, and that while it continues, intemperance, with its wide-spread and desolating evils, can never be prevented. The members adopted the following resolutions, and agreed to abide by the same.

Resolved, That we will ourselves wholly abstain from the use of distilled spirits, except as a medicine, in case of bodily infirmity; and that we will not allow the use of them in our families, nor offer them for the entertainment of our friends or visiters.

Resolved, That the custom which requires the employer to provide ardent spirits for the labourer, is unreasonable and destructive, and that we will not hereafter offer them to labourers or mechanics in our employment, unless in cases when we conscientiously and deliberately believe it to be our duty.

Resolved, That in future we will *conscientiously endeavour*, so far as possible, to employ only such persons as do wholly abstain from the use of ardent spirits.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 19, 1828.

☞ A catalogue of fruit trees, for sale by Caleb R. Smith, of Burlington, New Jersey, may be seen at the office of the American Farmer. Mr. Smith's establishment has been highly recommended by Mr. Coxe, (author of that valuable work on fruit trees,) than whom there can be no better judge, nor one more worthy of confidence.

SOUTHERN EXPEDITION.

The sloop of war Peacock, which has been fitting at New York for the purpose of proceeding on a voyage of discovery into the Antarctic seas, is now stated to be ready, and waiting for her officers and crew.

We mentioned yesterday, (says the New York Mercantile Advertiser of 5th inst.) the appointment of Capt. JONES to the command of the Discovery Expedition. We since learn that Capt. BENJAMIN PENDLETON, of Stonington, is appointed directing pilot of the expedition, with the rank and pay of a Lieutenant in the Navy. All who are acquainted with these gentlemen, will admit that the Secretary of the Navy has made judicious selections. We understand the Expedition will consist of the sloop of war *Peacock*, lately re-built, under the eye of Commodore Chauncey; and two brigs, well adapted for the service. With such an expedition well equipped, and such appointments, backed by the persevering and meritorious J. N. REYNOLDS, with other gentlemen we have heard mentioned, the government and country has every thing to expect from its results.

TO THE SOUTHERN PLANTERS, FARMERS, AND INN-KEEPERS.

I am about visiting the southern states, for the purpose of accommodating all those who may wish to have my improvements in kitchen fire-places, and also in steam-boilers and stills, set up for cooking feed for live-stock. In the fixing of such establishments, I have been for some years successfully employed in the state of Maryland.

Under an authority duly received, I will also put up, when required, the apparatus for the pumping of water and for the cutting of straw, with a wheel worked by a Pointer dog, as in use at the Orange Farm, near Baltimore.

Letters, post paid, directed to me in Charleston, South Carolina; Savannah, Georgia; Mobile, Alabama; will receive immediate attention.

WILLIAM COPPUCK,
Culinary Projector, Baltimore.

[The Editor has long known Mr. Coppuck, and can commend him to the confidence of his readers for uncommon experience and skill in the execution of what he proposes above.]

LATEST FROM EUROPE.

The packet ship Alexander, arrived at Philadelphia on Sunday, with London papers to the 6th, and Liverpool to the 8th November. They contain no political intelligence of importance, and the only articles of interest are those relating to the markets. The Liverpool Courier, which, from the first part of the season, asserted in the strongest terms, that the crops in England were short, still maintains the same opinion, which seems to be fully borne out by subsequent information upon the subject.

Letters have been received here, stating that the French government has prohibited the export of corn from France, and that the shipment of "fifteen cargoes of grain" at Havre, had been, in consequence of this prohibition, prevented.

LIVERPOOL MARKETS.

(From the Liverpool Chronicle, Nov. 8.)

SUGAR, &c.—Our sugar market has been very quiet this weeks, only 500 hhds. having been sold at former rates, 54s for low brown to 71s for fine. Nothing has been done in foreign East India. 250 casks Molasses have changed hands at 26s 6d for Antigua, and 27s for Demerara. About 200 casks of Coffee have been taken at full prices, and 350 bags St. Domingo at 36s 6d.

DRY SALTERIES, &c.—In consequence of the holders of Ashes advancing their prices, the business has been confined to small purchases, amounting to not more than 200 bbls. of Pot and Pearl. Little has been done in Indigo at Liverpool, the operations having been confined to London, at a slight advance on the recently finished Company's sale; 309 chests are advertised for Thursday next, the 16th inst., but it is supposed 180 will not be offered. Of Saltpetre, the transactions are respectable at very full prices. In Mediterranean produce, the sales in Olive Oil are 140 tons Gallipoli, Sicily, and Malaga, at a further advance in price.

Corn Exchange, Nov. 5.—Arrivals since Monday: English Wheat, 2600 quarters; Barley, 2650 qrs.; Flour, 3100 sacks; Irish Oats, 700 qrs. Foreign Wheat, 1950 qrs.; Barley, 150 qrs.

Extract of a letter from Liverpool, 8th November, 1828.

Gentlemen: Our Cotton market has been rather languid since the date of our last circular of 1st inst., and prices are not fully maintained, particularly in common qualities, which are 1-8d per lb. lower. The sales this week have amounted to 10,900 bales, of which 3400 are Uplands at 6 1-8d a 7¼d; 1500 Orleans at 6¼ to 8½d, with 20 at 9d; 1400 Alabamas at 5¾ to 7 1-8d; and 954 Sea Island yesterday by auction, at 14d a 20d per lb. The Sea Island sale was well attended; went off briskly at an advance of 1d per lb. on the prices obtained at the last public sale, 26th September. The week's business has been confined to the trade and spinners, little or nothing having been done on speculation.

The Corn markets have been dull since our last, and prices of free grain have declined 4d a 6d per bush. which is attributed chiefly to the anticipation of the heavy supply of bonded grain, which must shortly be brought upon the markets. Prices of bonded wheat are fully supported, and flour in bond would no doubt command 40s a 42s per barrel. The average of wheat for the week ending 31st ult. was 72s 6d, and the aggregate average of the six weeks 69s 10d, making the present duty 13s 8d per qr. for wheat, and about 8s 3d per bbl. for flour. The speculators generally, still hold with firmness, but as we before remarked, it is impossible to say what effect may be produced, when the bonded grain and flour becomes admissible at an almost nominal duty. Indian corn continues dull.

The advance in ashes has quite suspended the demand. Early in the week an extensive business was done in tobacco, at a further advance of 1-8 a ¼ per lb. but very little has been done the last few days, owing to holders demanding higher rates—2000 bbls. prime turpentine have been sold this week at 11s 3d per cwt.

Wheat in bond per 70 lbs. 9s 6d a 10s 6d; flour do. per bbl. 40 a 42s; Indian corn per qr. 38 a 40s; Ashes, N. York, Pot 31 a 32s; do Pearl 30 a 32s; Rice in bond 17 a 20s; Quer. Bark 12s to 13s 6d, Clover seed 46 a 62s; Turpentine 9s 6d a 11s 3d; Tar, 10 a 12s; Tobacco, Va. leaf 2¼ a 5; do stemmed 2¼ a 5; Kentucky leaf 2 a 3¼; stemmed 2¼ a 4; U. States Bank shares 25*l.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,
No. 4, Bowly's wharf.

TOBACCO.—Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 8.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rappahannock 2.75 *a* 3.50—Kentucky, 3.00 *a* 5.00.

FLOUR—white wheat family, $9 50 *a* 10.00—superfine Howard-st. 8.00 *a* 8.50; city mills, 7.75 *a* 8.00; Susquehanna, 8.00—CORN MEAL, per bbl. 2.75—GRAIN, best red wheat, 1.65 *a* 1.75—best white wheat, 1.75 *a* 1.85—ord'y to good, 1.45 *a* 1.65—CORN, old, .48 *a* .50—new corn, .44 *a* .46—in ear, bbl. 2.00 *a* 2.25—RYE, bush. .50 *a* .55—OATS .23 *a* .26—BEANS .75 *a* 1.25—PEAS .45 *a* .55—CLOVER SEED, 5.00 *a* 5.50—TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .60 *a* 62—FLAXSEED, .75 *a* .80—COTTON, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—WHISKEY, hhds. 1st proof, .25—bbls. .26 *a* .26½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—BACON, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

MARKETING—Apples, per bush. .50 *a* .75; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .25; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, 1.00, Pork, 4.00 *a* 4.50 per cwt.; prime Beef on the hoof, 5.50 *a* 6.00.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

THE VETERINARY PHARMACOPEIA.

The following *formulæ for veterinary practice* have been compiled from the works of the most eminent veterinary writers of the present day, as Blaine, Clark, Laurence, Peel, White, &c.; and we can from our own experience also, confidently recommend the selection to the notice of agriculturists, and the owners of horses in general. It would be prudent for such as have many horses, and particularly for such as live at a distance from the assistance of an able veterinarian, to keep the more necessary articles by them in case of emergence: some venders of horse drugs keep veterinary medicine chests; and where the compositions can be depended on, and the uncompounded drugs are genuine and good, one of these is a most convenient appendage to every stable. The best arranged veterinary medicine chest we have seen, was in London, at the veterinary elaboratory of Youatt, of Nassau street, Middlesex Hospital.

The veterinary pharmacopeia for oxen, calves, and sheep has been included in the arrangement. When any speciality occurs, or where distinct recipes are requisite, they have been carefully noticed; it will, therefore only be necessary to be kept in mind, that with the exception of acrid substances, as mineral acids, &c., which no cattle bear with equal impunity with the horse, the remedies prescribed require about the following proportions. A large ox will bear the proportions of a moderate sized horse; a moderate sized cow something less; a calf about a third of the quantity; and a sheep about a quarter, or at most a third of the proportions directed for the cow. It is also to be remarked, that the degrees in strength in the different recipes, are usually regulated by their numbers, the *mildest* standing first.

Alteratives.

1.

Levigated antimony, two drachms.
Cream of tartar,
Flour of sulphur, each half an ounce.

2.

Cream of tartar,
Nitre, of each half an ounce.

3.

Æthiops mineral,
Levigated antimony,
Powdered resin, each three drachms.

Give in a mash, or in corn and bran a little wetted, every night, or make into a ball with honey.

Tonic Alteratives.

1.

Gentian,
Aloes,
Ginger,
Blue vitriol, in powder, of each one drachm.
Oak bark in powder, six drachms.

2.

Winter's bark in powder, three drachms.
Green vitriol, do., one and a half drachm.
Gentian, do., three drachms.

Make either of these into a ball with honey, and give every morning.

3.

White vitriol, one drachm.
Ginger or pimento ground, two drachms.
Powdered quassia, half an ounce.
Ale, eight ounces. Mix, and give as a drink.

4.

Arsenic, ten grains.
Oatmeal, one ounce.

Mix, and give in mash or moistened corn nightly.

Astringent Mixtures for Diarrhœa, Lax, or Scouring.

1.

Powdered ipecacuanha, one drachm.
Do. opium, half a drachm.
Prepared chalk, two ounces.
Boiled starch, one pint.

2.

Suet, four ounces; boiled in
Milk, eight ounces.
Boiled starch, six ounces.
Powdered alum, one drachm.

The following has been very strongly recommended in some cases, for the lax of horses and cattle.

3.

Glauber's salts, two ounces.
Epsom do., one ounce.
Green vitriol, four grains.
Gruel, half a pint.

When the lax or scouring at all approaches to dysentery or molten grease, the following drink should be first given.

4.

Castor oil, four ounces.
Glauber's salts (dissolved,) two ounces.
Powdered rhubarb, half a drachm.
Powdered opium, four grains.
Gruel, one pint.

Astringent Balls for Diabetes or *Pissing Evil.*

Catechu, (Japan earth,) half an ounce.
Alum powdered, half a drachm.
Sugar of lead, ten grains.

Conserve of roses to make a ball.

Astringent Paste for Thrush, Foot-rot, Foul in the Foot, &c.

Prepared calamine,
Verdigris, of each half an ounce.
White vitriol,
Alum, of each half a drachm.
Tar, three ounces: mix.

Astringent woshes for cracks in the heels, wounds, &c.

1.

Sugar of lead, two drachms.
White vitriol, one drachm.
Strong infusion of oak, or elm bark, one pint: mix.

2.

Green vitriol, one drachm.
Infusion of galls, half a pint.

Mix, and wash the parts three times a day.

Powder for Cracks, &c.

3.

Prepared calamine, one ounce.
Fuller's earth, powdered,
Pipe clay, do., of each two ounces.

Mix, and put witbin gauze, and dab the moist surfaces of the sores frequently.

Astringent Paste for Grease.

1.

Prepared calamine,
Tutty powdered,
Charcoal do., of each two ounces.

Yeast enough to make a paste.

2.

To the above, if more strength be required, add of alum and verdigris, each a drachm.

Astringent Wash for Grease.

3.

Corrosive sublimate, two drachms.
Spirit of wine or brandy, one ounce.
Soft water, ten ounces.

Rub the sublimate in a mortar with the spirit till dissolved, then add the water. This is a strong preparation, and has often proved successful in very bad cases of grease, which have resisted all the usual remedies.

Blisters.

1. A general one.

Cantharides powdered, two ounces.
Venice turpentine, powdered, two ounces.
Resin, do.
Palm oil or lard, two lbs.

Melt the three latter articles together, and when not too hot stir in the Spanish flies.

2.

A strong cheap Blister, but not proper to be used in fevers or inflammations, as of the lungs, bowels, &c.

Euphorbium powdered, one ounce.
Oil of vitriol, two scruples.
Spanish flies, six ounces.
Palm oil or lard,
Resin, of each, one lb.
Oil of turpentine, three ounces.

Melt the resin with the lard or palm oil. Having previously mixed the oil of vitriol with an ounce of water gradually, as gradually add this mixture to the melted mass; which again set on a very slow fire for ten minutes more: afterwards remove the whole, and when beginning to cool, add the powders previously mixed together.

3.

A Mercurial Blister for Splints, Spavins, and Ringbones.

Of either of the above, four ounces.
Corrosive sublimate, finely powered, half a drachm.

4.

Strong Liquid Blister.

Spanish flies, in gross powder, one ounce.
Oil of origanum, two drachms.
Oil of turpentine, four ounces.
Olive oil, two ounces.

Steep the flies in the turpentine three weeks, strain off, and add the oil.

5.

Mild Liquid or Sweating Blister.

Of the above, one ounce.
Olive oil or goose grease, one a half ounce.

Clysters, a Laxative one.

1.

Thin gruel or broth, five quarts.
Epsom or common salts, six ounces.

Clyster for Gripes.

2.

Mash two moderate sized onions,
Pour over them oil of turpentine, two ounces.
Capsicum, or pepper, half an ounce.
Thin gruel, four quarts.

Nutritious Clyster.

3.

Thick gruel, three quarts.
Strong sound ale, one quart; or

4.

Strong broth, two quarts.
Thickened milk, two quarts.

Astringent Clyster.

5.

Tripe liquor, or suet boiled in milk, three pints.
Thick starch, two pints.
Laudanum, half an ounce; or

6.

Alum whey, one quart.
Boiled starch, two quarts.

Cordial Balls.

Gentian powdered, four ounces.
Ginger do., two ounces.
Coriander seeds do., four ounces.
Carraway do., four ounces.
Oil of aniseed, a quarter of an ounce.

Make into a mass with honey, treacle, or, lard, and give one ounce and a half for a dose.

Chronic Cough Balls.

1.

Calomel, one scruple.
Gum ammoniacum,
Horse radish, of each two drachms.
Balsam of Tolu,
Squills, each one drachm.

Beat all together, and make into a ball with honey, and give every morning fasting.

Drink for the same.

2.

Tar water,
Lime water, of each half a pint.
Tincture of squills, half an ounce.

Powder for the same.

3.

Tartar emetic, two drachms.
Powdered foxglove, half a drachm.
Powdered squill, half a drachm.
Calomel, one scruple.
Nitre, three drachms.

Give every night in a malt mash.

Diuretic Balls.

Resin, yellow, one pound.
Nitre, half a pound.
Horse turpentine, half a pound.
Yellow soap, quarter of a pound.

Melt the resin, soap, and turpentine, over a slow fire; when cooling, add the nitre. For a strong dose, an ounce and a half; for a mild one, an ounce. It should be kept in mind, that mild diuretics are always equal to what is required; and that strong diuretics are always hurtful.

Diuretic Powders.

Yellow resin, powdered, four ounces.
Nitre, ditto, eight ounces.
Cream of tartar, ditto, four ounces.

Dose—six, eight or ten drachms nightly, which some horses will readily eat in a mash.

Urine Drink.

Glauber's salts, two ounces.
Nitre, six drachms.

Dissolve in a pint of warm water.

Embrocations.—Cooling for Inflammations.

1.

Goulard's extract, half an ounce.
Spirit of wine or brandy, one ounce.
Soft water, one quart.

2.

Mindererus spirit, four ounces.
Water, twelve ounces.

For Strains.

Bay salt, bruised, half a pound.
Crude sal ammoniac, two ounces.
Sugar of lead, quarter of an ounce.
Vinegar, one pint and a half.
Water, one pint.

For the Eyes.

1.

Sugar of lead, one drachm.
White vitriol, two scruples.
Water, one pint.

2.

Brandy, one ounce.
Infusion of green tea, four ounces.
Tincture of opium, two drachms.
Infusion of red roses, four ounces.

3.

Rose water, six ounces.
Mindererus spirit, three ounces.

4.

Corrosive sublimate, four grains.
Alcohol, one ounce.
Lime water, one pint.

5.

Alum, powdered, one drachm.
Calomel, half a drachm.

Mix, and insert a little at one corner of the eye. The custom of blowing it in alarms the horse.

Fever Powders.

1.

Tartar emetic, two drachms.
Nitre, five drachms.

2.

Antimonial powder, two drachms.
Cream of tartar,
Nitre, of each four drachms.

Fever Drink.

3.

Sweet spirit of nitre, one ounce.
Mindererus spirit, six ounces.
Water, four ounces.

Epidemic Fever Drink.

4.

Sweet spirit of nitre, one ounce.
Simple oxymel, six ounces.
Tartar emetic, three drachms.

Malignant Epidemic Fever.

5.

Simple oxymel,
Mindererus spirit,
Beer yeast, of each four ounces.
Sweet spirit of nitre, one ounce.

Fumigations for purifying infected stables, sheds, &c.

Manganese, two ounces.
Common salt, ditto.
Oil of vitriol, three ounces.
Water, one ounce.

Put the mixed manganese and salt into a bason; then, having before mixed the vitriol and water very gradually, pour them by means of tongs, or any thing that will enable you to stand at a sufficient distance, on the articles in the bason gradually. As soon as the fumes rise, retire and shut up the door close.

Hoof Liquid.

Oil of turpentine, four ounces.
Tar, four ounces.
Whale oil, eight ounces.

This softens and toughens the hoofs extremely, when brushed over them night and morning.

Purging Medicines.

Balls—very mild.

Aloes, powdered, six drachms.
Oil of turpentine, one drachm.

Mild.

Aloes, powdered, eight drachms.
Oil of turpentine, one drachm.

Strong.

Aloes, powdered, ten drachms.
Oil of turpentine, one drachm.

The aloes may be beaten with treacle to a mass, adding, during the beating, the oil of turpentine. All spices, oil of tartar, cream of tartar, jalap, &c. are useless, and often hurtful additions.

Liquid Purge.

Epsom salts, dissolved, eight ounces.
Castor oil, four ounces.
Watery tincture of aloes, eight ounces.

Mix.—The watery tincture of aloes is made by beating powdered aloes with the yolk of egg, adding water by degrees; by these means half an ounce of aloes may be suspended in eight ounces of water; and such a purge is useful when a ball cannot be got down, as in partial locked jaw.

Scalding Mixture for Pole Evil.

Corrosive sublimate, finely powdered, one drachm.
Yellow basilicon, four ounces.

Foot Stoppings.

Horse and cow dung, each about two pounds.
Tar, half a pound.

Wash for coring out, destroying Fungus, or proud Flesh, &c. &c.

Lunar caustic, one drachm.
Water, two ounces.

Wash for Mange.

Corrosive sublimate, two drachms.
Spirit of wine or brandy, one ounce.
Decoction of tobacco,
Ditto of white hellebore, of each one pint.

Dissolve the mercury in the spirit, and then add the decoctions.

Ointments for Healing.

1.

Turner's cerate, four ounces.
White vitriol, powdered, half a drachm.
Lard, four ounces.

For Digesting.

2.

Turner's cerate, two ounces.
White vitriol, one drachm.
Yellow basilicon, five ounces.

For Mange.

Sulphur vivum, eight ounces.
Arsenic in powder, two drachms.
Mercurial ointment, two ounces.
Turpentine, two ounces.
Lard, eight ounces.

Mix, and dress with every morning.

For Scab or Shab in Sheep, Mallenders and Sellenders in Horses, and foul Blotches and Eruptions in Cattle in general.

Camphor, one drachm.
Sugar of lead, half a drachm.
Mercurial ointment, one ounce.

(From the Southern Agriculturist.)

SUGAR.

On the Culture of Sugar—by Edw. Barnwell.

Beaufort, September 18th, 1828.

Dear Sir,—Several encouraging statements in the Gazettes of this State and Georgia, and one partcularly so in your Agricultural number for Aprl, having attracted the attention of a few planters of this neighbourhood, to the culture of the sugar cane, a short excursion, as far as the Turtle River, in Georgia, was thought the best means of ascertaining the probability of cultivating this article with success in this state. With the hope that a few days of personal observation would be worth more than months of lettered communications, or perhaps years of experiments, a visit was made by myself to several of the sugar establishments at the southward, during the first half of the month of May, and the observations resulting therefrom, I now forward for such purpose as you may think proper.

One plantation upon Hutchinson's Island, opposite the city of Savannah, and subjected by purchase of that city, to dry culture, had only a few acres of ribband cane, growing solely for the purpose of furnishing seed for ensuing years. The proprietor ceased an extensive culture here, in consequence of failures, which, he has it in his power now, and intends to guard against in future.

Five plantations, on the Altamaha, were tide lands, under bank, and grew the ribband and Otaheite, or common green cane.

One, on common high land, a few miles from Darien, grew the same.

One, upon a branch of the Turtle River, upon high inland swamp, grew only the ribband. But one upon Sapelo Island grew three kinds, the green, the ribband, and a rare species called the yellow ribband. No decided preference has yet been determined upon by the planters, as to these different species, from the following peculiarities attached to them. The juice of the cane is well known to contain water, mucilaginous gum, a gross, an essential oil, and sugar, and yields these ingredients in proportion to the richness of the juice, and this depends much upon the dryness and richness of the soil in which it is cultivated. The great difficulty in manufacturing sweet, bright sugar, is to get rid of the water, gum and oils very quickly, as well as effectually.

The green cane yields the greatest product of sugar, is not very hard to grind, stands the frosts better than the yellow ribband, and ripens at the same time. But the sugar is not very bright, sweet, or dry, in consequence of the juice being poorer, the water, gum and oils more abundant, and more difficult to evaporate and extract. It also consumes a greater quantity of fuel, requires a longer time to boil, and thereby increases considerably the risk of burning or discolouring the sugar. The sugar produced by this cane requires a summer to drain it free of its molasses; besides, the foregoing objections, has induced two of the planters upon tide lands to boil only syrup.

The yellow ribband yields very beautiful, dry and abundant sugar, is the sweetest cane, and is easily ground. But it is very delicate, and does not bear the frosts well. This species is not yet thoroughly tried, and only twenty acres are cultivated on the high lands of Sapelo Island.

The ribband (so called from having purple streaks, somewhat similar to the stalks of the Guinea corn) yields less sugar, and is very difficult to grind; but the juice is very rich and sweet, bright sugar more easily obtained, as there is more saccharine and less aqueous, mucilaginous, and oleaginous particles than in the other two species. It also ripens earlier, and bears the frosts better; my own opinion is in favour of this cane, and I think the Georgians, and the planters of the more southern latitudes will in time prefer it also. One of the Altamaha planters has a crop of seed sufficient to plant 500 acres the next year, and has sent for a steam power to express the juice effectually from the cane. It appears to be the opinion of most, if not all, the gentlemen I conversed with upon the subject, that when cultivated as a large crop, the power of steam would be required for this essential purpose. Tide mills are uncertain, animals are liable to various accidents, are expensive, and often too weak. For, when the crop is ripe, every exertion must be made to expedite its manufacture, and no delay for want of water or animals must be experienced. The cylinders to the mills in general were perpendicular; two that I saw were horizontal. This latter position, requiring bevel wheels, demands more power, but as its evolution is accelerated, it yields a much greater quantity of juice in a given time. Three to six yoke of oxen are driven at a time, and changed as often as fatigued. Perhaps four times in fourteen hours. One or two of the establishments had copper boilers, but iron have been found equally good and less expensive. Hot and cold clarifiers were used, and in some instances they were dispensed with entirely. Two of the mills had live oak cylinders, the other cast iron. One mill tried two cylinders in a horizontal position, but it proved inadequate to the complete expression of the juice, although the cane was passed twice through. The tide lands flow their canals, and the cane is carried to the mill in long narrow flats; upon high ground it is carted; and to manufacture an acre of cane per day, not less than twenty or twenty-five hands would answer

The culture of cane is precisely the same as of corn. Planters upon high lands commence cutting their seed cane about the middle of October. That for seed, is by some pulled or hoed out, with the roots attached, and thrown into the alleys for two or three days, that the blades may wilt; the product of three or four rows are then put into one alley, and well covered with earth to protect the eyes of the cane from frosts. In January or February they are cut into pieces containing three or four eyes, and planted in a good list about three inches deep. The roots are sometimes separated and planted, and appeared to promise well; but they are not considered very sure. The mildness of the last season, perhaps favoured their present success.

On my return to my plantation, near Cossa river, in Prince William's Parish, where I have one-fourth of an acre of the ribband cane growing, I found it on the 21st of May as well grown as any seen at the south, but not so well shouted; this may be attributed to my planting as late as the 1st of March. The frosts which prevailed so generally, and so late as the 6th April, cut many of the shoots, which were a foot in height, to the ground, many half way, and many were not injured in the least, although they had the appearance of being white-washed, while the frost was upon them. This was precisely the case upon the tide lands, on the Altamaha. The opinion of several planters was, that it did not impoverish the soil, as the field trash from the cane is considerable. One square of many acres, upon tide land, was pointed out, which had been cultivated in cane for fourteen years, without any visible deficiency in its product.

The success in making a profitable crop, appears to depend much upon a wet season in the early part of the summer, and a dry one in the latter part. And, I have accompanied these desultory remarks with a statement I procured from the books of the late Agricultural Society, in Darien.

A Statement of Sugar Crops, at Butler's Island, (tide land,) for ten years.

	Acres.	*Sugar.*	*Molasses.*	*lbs. sugar pr acre.*
1815	80 wet	134 hhds.	80 hhds.	1675
1816	40	12½	8	312
1817	20 wet	28	25	1400
1818	100 dry	12	8	120
1819	35	29	24	828
1820	40½	11	8	270
1821	18	10½	8	583
1822	68	40	28	588
1823	54	35	21	549
1824	48½	50	30	861
	524	362 *a* 1000 glls.	240 hhds. *a* 100 glls.	

This statement gives an average of 961 lbs. of sugar, and 45 galls. molasses per acre for ten years, which, at $8 for the sugar, and 25-100 for molasses, (both moderate calculations,) gives $55 28 for the sugar, and $11 25 for the molasses =$60 53 per acre, which is =250 lbs. of cotton per acre, a 25-100.

I omitted mentioning that it required at least one cord of wood (good dry pine, light wood if possible,) per acre. One of the planters upon tide land, who boils only syrup, makes 300 gallons per acre. and sells it in Savannah from 28 to 30 cents per gallon. I found they were not in the practice of burning the cane as fuel, but no care was bestowed in stacking it for drying, and preparing it for the next year;* and in our wet winter months, it will not dry sufficiently to make an active flame, which appears peculiarly necessary for the quick boiling of the juice.

Should you feel disposed to make any further inquiries upon the subject of this communication, and I have it in my power, I will, with much pleasure, furnish the answers, and remain, dear sir, yours, very respectfully, &c.

EWD. BARNWELL.

(From the Franklin Journal.)

SWEET POTATO.

Information and Prospectus respecting the Fecula of the Sweet Potato. Being a continuation of the article on that subject, in the 5th vol. of the Franklin Journal—communicated by G. G. Barrell, Esq., *Consul of the United States, at Malaga.*

Boston, Oct. 2, 1828.

My Dear Sir,—I have recently received a canister of the fecula of the Sweet Potato, from G. G. Barrell, Esq., consul of the United States, at Malaga, with an account of its use, other than as starch, with a request, that experiments may be made of it, by some of the medical faculty; and as a sample was sent to the Massachusetts Hospital, for the same purpose, I have concluded to forward that sent to me, to the directors of the Pennsylvania Hospital, with a request that they will be so kind as to publish their opinion of its use in the Medical Journal of the city, or in the Franklin Journal.—As the account of the mode of extracting the fecula, which I received from Mr. Barrell, appeared in the Franklin Journal, I should like to have the prospectus I enclose, inserted in that useful work, whether it is printed with the result of the experiments at the Hospital, in the Medical Journal, or not.

As Mr. Barrell has evinced a commendable zeal to be useful to his country, it is but just that his good deeds should be known.

If Doctors Physick and Chapman are not connected with the hospital, I desire that some of the fecula may be given to them, with the hope that they will try it, and give their opinion of its utility for the purposes named in the prospectus, which please to have copied and presented to them.

With sincere respect and great esteem,
Your most obed't serv't,
(Signed,) H. A. S. DEARBORN.

Gerard Ralston, Esq.

Prospectus of the Fecula of the Sweet Potato.

This most useful discovery has taken place in Malaga, the only part of this hemisphere where that admirable production of the earth, characterized by Linnæus, *Convolvulus Batata*, class 5, order 3, of the convolvulus family, is to be found; and has been rewarded by his Catholic majesty with a patent of invention. This fecula, extracted without fermentation or putrefaction, and for that reason wholly free from acidity, has been scrupulously analyzed by some of the most able professors in pharmacy, commissioned for that purpose, who have unanimously pronounced it superior to sago, tapioca, or any farinaceous substance hitherto discovered, without excepting the celebrated plant, known by the name of *Galunga Arundinaceo*, or arrow root, from the extreme whiteness, suavity, and fineness of the molecula which compose it, (visible only by the help of the microscope,) from its most digestible and nutrimental qualities, and, finally, from being combined with the saccharine matter, of which every other species of fecula is totally void.

Thirty-five of the principal physicians and surgeons of Malaga, including the director and professors of the Royal College, and the physician-general of the army, Dr. Andrew Vila, have attested, authentically, its sovereign efficacy in nervous debilities; in the febrile tabes, or consumption, and in the convalescent state; and as a medicine in diarrhœa, dysenteries, and all disorders proceeding from irritation in the stomach and intestinal canal. It has since been seen, with admiration, to cure, in a few days, the most inveterate gonorrhœas; the fluor albus, or whites, and excess in the menses; and has been found of admirable use as nourishment for children during lactation, substituted for the food called pap, which frequently is attended with such bad effects.

The use of this excellent article, is not to be limited solely to the sick; the delicacy of its substance (attested by the most celebrated cooks and confectioners in Spain,) rendering it of incomparable utility in pastry, fritters, &c; and in custards, blanc-mange, and biscuits, particularly those termed in Spanish *Borrachuelos*, which, composed of fecula, are absolutely inimitable by the finest flour of wheat.

The most common method of using it as a medicine, or as food, is as follows:

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* In the West Indies they make use of no other fuel; one week's exposition to the air and sun is sufficient to make the stalks fit for fuel; when it is not quite dry they then use it with the dried blades picked in the field-

For milk porridge, "*natilla*," take a quarter of a pound of fecula, and dissolve it in a sufficient quantity of cold milk, (that of almonds is preferable, in case of sickness,) the lumps must be well mashed; and with the addition of two quarts of milk, put before a slow fire, stirred in one direction till sufficiently boiled, introducing sugar and cinnamon afterwards, as the disease may permit. As a cooling medicine, it is generally used in its crude state, either as a clyster, or as orgeat, with water and sugar, particularly in cases of gonorrhœa, and all kinds of fluxes.

In using the fecula for pastry, fritters, &c. it is necessary to observe, that in consequence of the fineness of its molecula, on coming in contact with liquids, it thickens and increases very considerably. The proportion in which it is to be used, relative to flour, is that of ten and a half ounces, where a pound of the latter would be required. Finally, mixed with one-third part of flour, or in equal quantities, it produces bread unequalled in point of wholesomeness and delicacy.

CERTIFICATES.

I, Don Rafael Briz, doctor in pharmacy, hereby certify, that having been commissioned by his excellency, the governor of this city, to analyze the fecula of the sweet potato, invented and extracted by Don R. Mackinnon, after a most scrupulous examination and repeated trials of this delicate substance, I have found it to be beyond comparison superior to sago or tapioca, and worthy of every degree of encomium, for having demonstrated itself, in the most eminent manner, from its rare and admirable properties, both physical and chemical, to be the most salutary, select, and pure, of all feculas or farinaceous substances hitherto discovered; which analytical task I delivered to the said authority, in my exposition of the subject.

(Signed,) Don Rafael Briz.

Malaga, 4th November, 1827.

We, the undersigned, doctors in medicine and surgery, certify, that having seen the analysis and report of Don Rafael Briz, on the fecula of the sweet potato of Malaga, and carefully observed its admirable effects on a great number of convalescents, to whom we have applied it, sometimes as a cooling medicine, as an alimentary substance, and sometimes as a cathartic, we agree perfectly with his opinion with respect to it, and conceive that, besides its excellent effects in general, it would be singularly useful in bilious diseases, and cases of dysentery.

Malaga ut Supra.

(Signed,) Joseph Mary Salamaca, Joseph Prieto Lopez, Rafael Plaza, Joseph Martinez, Joseph Cortez, Antonio Argohejo, Manuel Mary Huzarmas, Gabriel Mendoza, Francis Laleta, Joseph Casablanca, Antonio de Navas, Vincent Orts, Joachin Giraldes, John Buraz, Antonio Ducares and Gomez, Michael Fernandez-Navarro, John Gonzales Calo, Joseph Brull, Joseph Mendoza, Julian Gomez, Christopher Alarcon Parras, Francis de Rula Fernandez, Antonio Rodriguez, John Nepomuceno Fernandez, John Mendoza, Andrew de Castrilla, Francis Falleda, Santiago Lopez, Antonio Ferran, Francis de Estrada, Antonio Cerez, Joseph Felix Guerrero.

I, Don Andrew Vila, Physician-general of the Royal Armies, and of the military hospital of this city, inspector of epidemical complaints in New Castile, Fellow of the Royal College of practical medicine in the court, and one of his majesty's pensioners of merit, certify,

That the healthy state of the lower class, and children who use the boiled sweet potato as their principal nourishment, the suavity and tastefulness of the fecula, and the inalteration of its properties, by extraction, together with its total separation from the fibrous parts, which alone resist the digestive powers, stimulated me to undertake a course of trials, which I conceived might be useful to the health of the military men under my command, as well as the economy of the royal finances. The dysenteries, degenerated into a putrid and incurable character, which attack the garrisons on the coast of Africa, and whom the benignity of his majesty sends to Spain for their cure, were the first objects of my essays. The use of the fecula speedily calms the symptoms of that terrible disorder, and arrests the progress of the tabes, distinguishing itself, particularly for its admirable effects in diarrhœas, which it perfectly cured in a few days. If facts can warrant the fortunate results of sound practice, my observations in the military hospital under my care, convince me even to demonstration, that the fecula of the sweet potato, is of a distinguished use in nervous weakness, in febrile emaciation, and in the convalescent states; and as a medicine in diarrhœa, dysenteries, and every disorder proceeding from irritation in the stomach and intestinal canals. I sign this declaration in Malaga, this 8th of November, 1827.

(Signed,) Andrew Vila.

HORTICULTURE.

KITCHEN GARDEN—FOR JANUARY.

[We commenced in No. 6, of this volume, with May, and shall give directions for February, March and April, in subsequent numbers.]

Though this month produces very little vegetation in the kitchen garden, yet there are many things necessary to be attended to for the production of articles in the months succeeding. The business of sowing and planting may now be performed moderately, in such crops as may be required in the earliest production, some in the natural ground and others in hot beds; such as radishes, spinach, lettuce, carrots, peas, beans, parsley, cauliflowers, cabbages, mushrooms, kidney beans, asparagus, small sallading, &c. Those sown in natural ground must be in the warmest corners, and gently covered on nights with warm mats; and when the weather is severe, they must likewise be covered in the day.

Cucumbers may be sown in a hot bed any time this month, to produce early fruit in March, April, and May. Have for this purpose well prepared hot dung, and make the hot bed a yard high, for one or two light frames, and earth it up six inches thick with rich mould. Sow some early prickly cucumber seed half an inch deep, and when the plants have come up, and the seed leaves half an inch broad, prick them in small pots, four in each, and put them into the earth of the hot bed, observing, from the beginning, to have proper air by tilting the lights at top, one or two fingers breadths; cover the glasses with mats every night; give them occasional watering, and, when you find the heat of the bed decreased, line the sides of it with hot dung. When cucumbers have advanced in growth, with the rough or proper leaves one or two inches broad, transplant them into a larger hot bed, finally to remain for fruiting.

Earth up your full-grown crops of celery; the late crops earth up moderately, and cover some best plants if the weather is frosty, or remove a quantity of them under shelter.

With respect to your endive, tie up some every week to blanch, in dry, open weather, and remove some with their full roots on a dry day, and place horizontally into ridges of dry earth, and in hard frosts cover them with long litter.

About the middle, or towards the latter end of the month, may be sown a little *carrot seed;* from whence you will have the chance of drawing a few young in April and May.

Plant *horse-radishes*, by cuttings from the off-set roots of the old ones; set them in rows two feet distant, and about fifteen inches deep, that they may obtain long straight shoots.

You must keep your tender plants, such as *radishes*, covered with straw constantly till they come up, and afterwards every night, more especially if the weather is frosty; also *cauliflowers, lettuce*, and *sallading*, under frames, &c. by putting on the glasses every night; and in severe frost, cover likewise the glasses and sides of the frame with litter.

GRAPES.

Retreat, near Dublin, Nov. 30, 1828.

Isabella Grape.—Much paper and ink have been wasted about the origin and value of the Isabella grape. I formerly understood, that Colonel Hawkins obtained it from the garden at Mount Vernon, as a grape from Fontainbleau; but, recently, the gentleman who succeeded Mr. Hawkins as agent to the Creek Indians, informed me that the scions were received from Mr. Fraser, a gentleman on botanical researches, who called it a French grape. Monsieur Roma had the same vine in his garden in Savannah, and said it was a French muscadel. It may be of much value to the north, where the climate suits it; but is worthless in the south, by reason of its ill habits. Half, or more, of the grapes, rot every year, be the season what it may; and only three or four ripe berries can be obtained from a bunch at one time, and nearly a month is required to ripen all the berries on a bunch: hence it is no wine grape in our climate. When ripe berries can be obtained in sufficient quantity, it yields wine of nice flavour, *provided* that the grapes are not too ripe, and the vintage remains only four or five hours in the vat; but let the grapes become mellow on the vines, and then let the vintage remain twenty-four hours in the vat, and the wine is ruined—dull, heavy, flat, and a strong taste of the seeds.

Alexander's, or Schuylkill Grape.—This grape is a native, and makes excellent wine under the following conditions: collect the grapes so soon as the berries are of full colour and in the plenitude of their juice; if they remain on the vines to become mellowed, the product will be a dead, flat and ill flavoured wine. When the grapes are mashed, or crushed in the vat, let them remain only one hour and a half, when the *must* will have obtained a sufficiency of colour; press, and the product will be a crimson rose colour, with flavour of the first class; but let the vintage remain ten or more hours in the vat, the longer the worse, and the wine will be austere and taste strongly of the seeds. The juice of this grape may be called weak, sp. gr. 1.056—raise the *must* with brown sugar to sp. gr. 1.124, and the wine will be strong enough.

Catawba.—This wine is said to be a native, and yields a superior dessert wine; and, as Mr. Adlum justly remarks, its vinous product suits all palates. Whether the flavour of the wine may be injured by the grapes mellowing on the vine is not known to me; but that it may be materially injured by too long residence in the vat, before pressing, is very certain. Five or six hours in dry warm weather is long enough. In cool, or wet weather, the continuance of the vintage in the vat may be of longer duration.

Bland Grape.—This is said to be of doubtful nativity. It makes good wine if we will have patience to wait for its maturity three or four years: it has a superabundant proportion of gum in the juice, part of which seems to be insoluble, and the lees formed by the vernal and autumnal fermentations do not subside and the wine become clear, without new additions of fining. No other wine that I have made requires refining. The vine and fruit are subject to mildew and rust.

Warren Vine.—This vine seems to be of foreign origin, and is of the superior class of wine grapes. It is subject to rot considerably with me: its vinous product was adjudged by a *gourmet* to resemble the delicious wine of Cyprus.

Round Violet Madeira Grape.—This vine came from Madeira to Savannah, many years ago: the vine is not distinguishable from the Warren, but the fruit is of a lighter colour, and the vinous product of a different flavour, and it is not subject to rot. It is a superior wine grape. The *gourmet* was probably correct about the flavour of the Warren wine, because all the wine grapes planted in Madeira, were transplanted from the island of Cyprus, in 1420, by Prince Henry of Portugal, Duke of Visco, together with the sugar canes of Sicily, for the use of the colonists.

Yours, respectfully,

J. S. Skinner, Esq. THOMAS McCALL.

FRUIT TREES AND VINES.

Dear Sir, *Kishacoquillis, Dec. 11th,* 1828.

It is considered by most men, upon settling themselves permanently, an object of some importance to have good fruit on their farms and gardens, as soon as possible, and it has been common for those who are unable to come at nurseries of engrafted fruit for transplanting, to await the bearing of seedling trees, or at least until they can have seedling stocks to engraft upon, and in either case it requires a period of ten or twelve years to elapse before a tree of this kind arrives at sufficient size to bear much fruit.

It is a fact which is not perhaps generally known, that the common white thorn, the crab apple, and the service or May cherry, make very good stocks for apples or pears, and may be found in great abundance in every part of our country.

By transplanting stocks of the above kinds in the fall, and engrafting them in the succeeding spring, we may have a handsome crop of fruit in four or five years, anticipating the usual period at least six or seven seasons.

For the different varieties of plums and cherries, roots of the common wild plum and field cherry may be taken up at the proper season, engrafted, and immediately planted where they are to remain.

About an inch of the stock is left with the root, to insert the graft in, and the earth must be drawn up so as to protect it from the sun and air.

Since a method has been discovered for preventing the ravages of the worm in our peach trees, that delicious fruit, which at one time had nearly been extirpated, is again likely to become abundant.

I have pursued the following plan for eight or nine years, with complete success, by which I have been enabled to preserve upwards of 100 trees in good health and vigour, whilst most of the trees in my neighbourhood were either dying or dead.

In the first place, if there is any gum about the roots, the earth is to be removed, and boiling water applied, as recommended by a young lady of New York. I can vouch for its safety and efficacy, having been in the practice of using it, and recommending it to others for the last eight years.

In the next place, a small barrowful of slaked lime or ashes is to be well rammed around the tree, This will generally secure them, so long as it is kept close and compact around the stock. But if, as it occasionally happens, gum makes it appearance at the surface, we know that a worm is below, engaged in the work of death; but by a little practice he may be instantly found and dislodged. For this purpose remove the earth, or ashes with a common trowel, and by sounding the bark with a fine pointed knife, the cavity beneath will be found in which the worm is lodged, slit it open, and he will be found nestling at the bottom.

It is a prevalent opinion that the grape vines of France and Spain require some protection from our winter frosts, which is certainly a mistake, with respect to this, or I believe any part of the middle states. I have a considerable variety of the most tender foreign kinds, which I find to bear the exposure throughout our severest winters without injury. All that is necessary is to cut them loose in the fall from their fastenings, and suffer them to swing freely in the wind. It has been found by experience, that the foreign grapes, when transplanted into our climate, do not make wines of the same quality as in their native soil, and that if we ever produce a wine which will compete with those imported, it will be from a native vine; and to this end, it is desirable that experiments should be multiplied in every part of our country.

I have selected as the subjects of my experiments, the Schuylkill Muscadel, and a very fine grape which was discovered upon the hills in Armstrong county, of which I have 500 fine plants of two years old last spring.

The greatest obstacle to the successful cultivation of the vine I have yet experienced, arises from the depredations of an insect commonly known by the name of rose-bug, which preys upon the leaves and blossoms, and have destroyed nearly all my grapes for the last two seasons, notwithstanding every pains I took to prevent it. If some one of your subscribers will point out a remedy, it will much oblige his and your friend.

Kishacoquillis.

INTERNAL IMPROVEMENT.

LEGISLATURE OF PENNSYLVANIA.

The Canal Commissioners of Pennsylvania respectfully submit the following

Report:

By their annual report on the 25th December, 1827, it appeared that the amount of Canal then under contract, and in progress towards completion, was about 212 miles, composed of the following divisions:

Western division from Pittsburgh, up the Alleghany, Kiskeminetas and Conemaugh to Blairsville,	80 miles
Part of French Creek feeder, from Bemis mill to Conneaut Outlet,	9 miles
Eastern division, from the mouth of Swatara to that of Juniata,	24 miles
Juniata division, from a point near the mouth of the Juniata to Lewistown,	44½ miles
Susquehanna division, from a point near the mouth of Juniata to Northumberland,	37 miles
Delaware division, from Bristol to Taylor's ferry,	18 miles
	212½ miles

This aggregate is increased by about 4½ miles added to the Juniata and Susquehanna divisions, in order to unite them to a convenient point on Duncan's island, making the whole amount contracted for under the authority of the acts of 1826 and 1827, about 217 miles.

Since the report alluded to was made, the work on the several divisions has been steadily prosecuted. Considerable delay was produced by the prevalence of high water, from an early period last fall to the month of June last; and severe inconvenience has also been felt from sickness on the Juniata, Susquehanna and Delaware

It will appear, nevertheless, from the following sketch of the state of those divisions, that a great amount of work has been accomplished.

The whole western division, from the outlet locks on the Alleghany to Blairsville is so far completed, that it will unquestionably be navigable at the opening of the spring. From the salt works, fifty miles above Pittsburg, to the Kiskeminetas feeder, the line is in actual use, and water is now flowing through that feeder to supply the whole distance below. From the salt works upwards to Blairsville, nothing remains which may not easily be finished during the present winter.

The nine miles of the French Creek feeder are in a similar state of forwardness. One or two culverts, four bridges, the fencing of the line, and a very small quantity of excavation and inside wall, are the only matters requiring further attention.

The amount of work done on the Juniata, between Lewistown and the mouth of Juniata, may be regarded as equal to two-thirds of the whole. This line has suffered from sickness more severely than any other in the state, and it experienced, moreover, a great scarcity of hands in the earlier part of the season. Those difficulties being now entirely removed, its completion may be expected before the 1st of August.

The Susquehanna division, from the mouth of Juniata to Northumberland, is considered three-fourths completed. Like the Juniata line, it was delayed by the scarcity of workmen in the early summer months, and by the sickness incident to our river valleys. At its present rate of progression, it cannot fail of completion by the first of July next.

The Eastern division is entirely finished, except the two sections at Peter's mountain, (on which about two months' work remains,) and the aqueduct embankment at Stony and Clark's creeks. It is confidently believed, that the navigation from the mouth of Juniata to Middletown, will be in actual use before the rising of the legislature.

The contracts existing on the Delaware, at the date of the last report, extended only to the excavation and canal formation of 18 miles, and included no work of wood or stone. All these contracts have been satisfactorily completed, and further contracts have been made for the locks, culverts, aqueducts and bridges on that portion of the line, to be executed early in the next season.

In executing the act of the last session of the legislature, making further appropriations for the Pennsylvania Canal, and directing additional contracts to be made, the Board acted on the principle, that the money thus placed at their disposal, should, as far as practicable, be devoted to the old lines, and that the new contracts should be made so late in the season, as to constitute no serious charge upon the existing appropriation.

At the meeting of the Board in March, it was deemed advisable to place under contract seven additional miles of the Delaware division, which was accordingly done on the 20th May following. No arrangement having yet been made with the state of New Jersey for the use of the Delaware, and it being still uncertain from what quarter the canal might ultimately be filled with water, the engineer was directed to re-examine the whole line from New Hope to Easton, and so to adjust its location, as to admit of a full and easy supply, whatever might be the result of a negotiation with New Jersey. This was satisfactorily effected to a point about seven miles below Easton, from which the location must entirely depend upon the question, whether the Delaware or the Lehigh be used as a feeder. The Board accordingly determined at their meeting in August, to place under contract 28½ miles from New Hope upwards, and to reserve the remaining distance until the result of the negotiation pending with New Jersey should be known.—Of this amount 18 miles were contracted for on the 18th of September, and 10½ miles more on the 18th of November. The excavation and canal formation of the first seven miles of the Delaware line, above Taylor's ferry, are nearly complete.—The next eighteen miles are actively advancing, and in the remaining ten and a half miles, the contrac tors are now commencing their operations. The payments already made on the new line, amount to $28,285 33. It is the intention of the Board to extend their contracts to Easton, as early as possible next spring.

At the meeting of the Board in March last, Charles T. Whippo, Esq. was appointed an engineer, and was directed to commence the location of a canal line upon the north branch of the Susquehanna. Having selected the Nanticoke falls, 54 miles above Northumberland, as the proper place for taking a feeder, he continued his line 27 miles downwards, and reported it to the Board at their meeting in June. His plan being approved, that portion of the canal was placed under contract on the 24th of July. At the meeting in August, the remaining distance of 27 miles to Northumberland, was located by the Board, and the superintendent was directed to enter into contracts for 18 miles, so as to make up the 45 miles authorized by law. The work on this division has advanced with great spirit, and should the legislature authorize the construction of the remaining nine miles, estimated to cost only 37,000 dollars, a perfect navigation of 54 miles on the north branch, laying open the whole region of anthracite coal on that stream, will be in use by the spring of 1830.

In conformity with the act of the last session, Mr. Francis W. Rawle, an engineer in the service of the board, was instructed to make an accurate survey and estimate on both sides of the West Branch, from Northumberland to the mouth of Bald Eagle. His report of these surveys having been laid before the board at their session in August, and it appearing to their satisfaction that the left bank of the river was decidedly preferable, a portion of canal on that bank, commencing at Northumberland, and extending upwards to the Muncy hills, 23 miles, was placed under contract on the 1st of October. Since that period the work has been commenced on every section, and within the present week payments will have been made to the amount of 20,000 dollars.

As this line presents unusual facilities, no doubt is entertained of its completion within the coming year.

At an early period of the summer, Mr. Clinton, the engineer of the Juniata division, was instructed to continue that line, from its termination at Lewistown, a further distance of 45 miles. In the preliminary examinations necessary for this purpose, a survey was made, as required by law, to determine the practicability of carrying the canal along the Kishecoquillas valley. At the meeting in August, Mr. Clinton made a report on this subject, and presented to the board a draft and estimate of the line selected. He also reported, that the proposed route along the Kishecoquillas valley was wholly impracticable. In the month of October last, contracts were entered into for 45 miles, commencing at Lewistown, and terminating at Smith's mills, a short distance above Huntingdon. On this portion of the canal operations have partially commenced, but no payments will be made until the 15th of January next, and its completion is not looked for before the middle of the year 1830.

Contracts have also been entered into, for the extension of the French creek feeder 10½ miles, for continuing the Western Division from Blairsville up the Conemaugh 27 miles, and for ten miles of the distance between Middletown and Columbia, all of which are commenced, but no payments have been made for work except a small amount of the feeder line.

Early last spring, Major Wilson, an engineer of the Pennsylvania railway, was directed to commence at Columbia, and to make an accurate location of the whole line from thence to Philadelphia. He was instructed to examine every route which had been proposed to the Board, or which might be deemed advantageous by the inhabitants of the country through which the improvement passes. In such a survey much time was necessarily consumed, and consequently no part of the line has yet been constructed. At the present session of the Board a full and gratifying report has been received from Major Wilson, showing that a railway graduated within the limit of locomotive machinery, is perfectly practicable from the bank of the Susquehanna to that of the Schuylkill, and containing minute estimates and descriptions of the work. At each end of the road an inclined plane and stationary engine will be required to reach the river level. From the inclined plane on the Schuylkill, which it is contemplated to fix near the residence of the late Judge Peters, the railway will cross that river by a bridge, and pursuing the line of the old Union Canal, will reach the city of Philadelphia at the intersection of Broad and Vine streets.

The Board have reason to believe, that the selection of this line has been skilful and judicious; and that the mode of entering the city of Philadelphia is preferable to any other proposed: they have therefore confirmed the whole location, and in compliance with law have directed the road formation of 40 miles to be placed under contract.

It is believed that a line of railway leading to a large city, cannot exert its full capability, without the construction of branch lines near its point of termination, by means of which the trade may be conveniently diffused. It would be difficult for the board to fix the localities of such branch lines, as they must occupy, in some degree, the streets of the city, and otherwise interfere with its internal regulations. They have regarded it, however, as a great advantage attending the present location, that by keeping the level of the summit between the Schuylkill and the Delaware, it admits of an easy extension to the latter river, through the city or adjoining districts; and it is recommended that every facility for such extensions be afforded, either to the corporations of the city and districts, or to associations of individuals formed for the purpose.

While considering this subject, they have been struck with the importance, in a commercial point of view, of a line from the stationary engine near Judge Peters', to some point of the Schuylkill, affording a complete communication with the ocean. As such a line must follow the west side of the river, the difficulty before suggested would not be felt: and, but for want of authority under the existing law, the board would be prepared to direct its construction.

(To be concluded in our next.)

LADIES' DEPARTMENT.

(From the Forget-Me-Not.)

THE MATRIMONIAL RULE.

Inscribed in the Album of a Young Lady on the eve of Marriage.

'Tis morning!—o'er the new-waked earth
The sun his brightest radiance flings,
And nought is heard, save sounds of mirth,
And all around with gladness rings:

Anon, light clouds begin to rise,
While eddying breezes sweep along;
Dark, and more dark, they veil the skies,
And storm-winds drown the voice of song.

So, lady, do we often see
The morn of matrimonial life
All smiles, all joy, all gaiety,
Its noon obscured by feuds and strife.

But would you know a charm of power
To assure the sunshine of the heart,
To break the tempests that will lower,
To blunt the point of discord's dart—
Bear and forbear!—no wiser given
Than this short rule, which, practised well,
Makes marriage e'en on earth, a heav'n;
Neglected—turns it to a hell.
F. S.

Recipes for Making Coloured Inks.

Red Ink.—The mode of preparing this ink, recommended by M. de Ribaucoort: infuse four ounces of ground Brazil wood in vinegar for three days; then heat it to the boiling point, and keep it for an hour at that temperature, after which, it must be filtrated. Whilst hot, dissolve in it one-third of an ounce of gum arabic, and the same quantity of sugar, and of alum; allow it to cool, and put it into well stopped bottles.

An ink of a still more beautiful shade may be made with a decoction of cochineal, to which ammonia is to be added.

The most beautiful of all the red inks, is made by a solution of carmine in liquid ammonia, allowing the excess of the alkali to evaporate, and adding a small portion of colourless gum arabic.

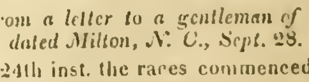
Green Ink.—Klaprotti's recipe for making a beautiful green ink, is the following: boil two parts of verdigris, and one of cream of tartar, in eight parts of water, until it is reduced to one-half. Strain it through a cloth, allow it to cool, and then bottle it.

Yellow Ink.—In a quart of boiling water, dissolve an ounce of alum; add half a pound of French berries, (*Graines d'Avignon;*) keep the mixture at the boiling point for an hour, strain the liquid, and dissolve in it a little more than a quarter of an ounce of gum arabic.

By following the same process, but substituting a much smaller quantity of saffron for the French berries, a much more beautiful yellow will be obtained. A still more durable colour may be made from gamboge, by merely dissolving it in water, until it is of the shade required.

By means of concentrated solutions of the greater number of colouring substances, inks of every shade may be prepared; a portion of gum is, in general, required, to suspend the colouring matter; and sometimes, corrosive sublimate must be added, to prevent mouldiness.

SPORTING OLIO.



NORTH CAROLINA RACES.

Extract from a letter to a gentleman of Nashville, dated Milton, N. C., Sept. 28.

On the 24th inst. the races commenced over the Milton Course, with a sweepstake for colts, mile heat and repeat—four colts started—West's Virginian filly, the only one in order; the others, all trained by inexperienced persons, were not in good condition. The Virginian took the first heat, but Whitlock's filly by Sir William, won the second and third. Time, 1st heat, 1m 57½s; 2d, 1m 58½s; 3d, 2m 7s. The William filly ran at her ease the last heat, the others not being able to put her up. The track was very heavy. In the evening after the above race a very heavy rain fell.

On the next day, seven started for the proprietor's purse, best three in five, mile heats, viz: Whitlock's Virginian mare, 4 years old; S. Douglass's Virginian mare, 4 years old; Edward Davis' Archie, 5 years old, raised by Bennehan out of his old Druid mare; Col. Winn's Charles' filly, a fine animal; West's Virginian colt, Williamson's Frantic, and Col. Carrington's colt Caswell by Sir William, dam by Bedford; brother to Giles Scroggins, and raised by James W. Jeffreys.

The course is at all times hard to run over, but to-day the most difficult and heavy, the water standing in many places, and the mud ankle deep. Expectation high for fine sport; many good horses in fine order. Betting on the William against the field. Whitlock ran his best for the first heat, the William trailing her at his ease into the quarter stretch. The second heat West's colt made his grand effort from start to pole. But as the William had fairly won the highest place in the synagogue, he did not choose to relinquish it, but said "away slight man." The third heat was yet to be contended for, and expectation was on tiptoe that the heats would be broken and make more sport. The Charles filly had chosen to conceal her powers in the crowd of followers. All had saved their distances, consequently the William had fearful odds to contend with. The Lady Charles was pointed out by the numerous crowd, as the Venus, probably to attract the attention of the youthful Adonis. She is fair, delicate, well proportioned, sprightly, and attracting. Though a little coquettish, she has before had the honour of winning the attention on another course. It was thought the young Adonis could not resist the fair one's charms, especially it being *leap year*, it was thought she would be too importunate and unwilling to take a *no* for answer. At going off she kindly offered her services and society, but he politely declined the offer, was too young for intrigue, and preferred the open field of glory and renown before him. With the goal steadily in view, he won the glittering prize without further contest. It is true he was accused of ungallantly throwing mud in his mistress' eyes; but as that is the common lot of those who follow the great, nothing farther was said. Time—1st, 1m 57½s; 2d, 1m 57s; 3d, 1m 56s.

The state and nature of the track considered, it was judged very good time. But the winner never ran a jump; he is able to run three heats in 1m. 50s. each, over a good track, and shows no want of bottom. On the following day Winn's Merlin, West's Wewhock by Shawnee, and Waxey by Archie, raised by G. W. Jeffreys, were entered for the Jockey Club two mile heats; but Winn took fright, drew Merlin, and started him home. Wewhock and Waxey ran, but it was evident to all that Waxey was out of order, too high and feverish; he however ran Wewhock close, but would not pass him when it was evident to all that he could if he would, as he had the heels decidedly, but he ran directly after him, and could not be turned on one side. The heat was run in 3m. 50s., the best time ever run over this course, or on any other in the two states; it was two seconds better than Sally M'Gelus and Sally Walker's best. The 2d heat Waxey took the track, and maintained the ground for 1½ miles, but finally beat.

(From the Hunting Directory.)

HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound—Of the Size, Colour, and Breeding of Hounds, &c.

(Continued from page 318.)

The southern hound is smaller than the dog last noticed; but retains as much, if not more, of the Talbot blood; in fact, what is called a thorough southern-hound, may be regarded as a smaller kind of Talbot. The first remove from the southern-hound is the *kibble*, many of which may be seen in Lancashire, particularly in the neighbourhood of Manchester. The Ashton (a few miles from Manchester) pack of harriers is composed of hounds of this description, and there are few, if any, better harriers to be found in the kingdom. The Rochdale harriers are of the same description, as well as several other packs in the same neighbourhood.

In some parts, beagles are used in the pursuit of the hare; and these may be divided into two classes—the large and the lap-dog beagle. These dogs appear like dwarfs in the hound tribe, and are distinguishable by their short legs and elongated bodies.

There are many hounds to be met with resolvable to none of the classes above enumerated, but which appear to be a mixture of the whole; nothing, indeed, is more common than an union of the large harrier and the beagle for the pursuit of the hare; and hounds thus bred, are well calculated for the purpose just mentioned.

As the stag hound already noticed, constituted the first remove from the Talbot, and was nearly the same height, but not so heavy, it may be supposed, that the large lurcher or something of the grey hound kind, was employed in his production. It will be more difficult to account for the immediate origin of the southern-hound, unless, indeed, we suppose, that accident produced a few Talbots of a smaller kind, and hence they were propagated The same sort of reasoning may be applied to the beagle, while the fox-hound of the present day is evidently a mixture of the whole; and as the crosses for the production of this animal have been directed by the different opinions of a number of individuals, so we may perceive the reason of that great variety in these animals which cannot have escaped the notice even of the most indifferent observer. Yet; generally speaking, sufficient reflection has not been exerted in the production of the fox-hound—speed has been the principal objects of consideration, and on this account fox-hounds have been produced with such inferior olfactory organs, that they were utterly incapable of pursuing the chase unless the atmosphere was as favourable to scent as possible.

It became the fashion also to consider a *small head* in the fox-hound as indispensable to the beauty of his appearance, which is utterly incompatible with exquisite sense of smell.—It is a very well known fact, that the sense of smell varies very much in dogs; or, to speak as a sportsman, some of them possess better noses than others. In dogs with broad heads, the os æthmoides, or *sive bone*, is much larger than in narrow headed dogs; the *laminæ cribrosæ*, or the *sive* itself, is therefore more capacious, and contains more openings; so that the olfactory nerves, which pass through it, are more numerous, and are divided more minutely, and thus that exquisite acuteness of smell is produced, which is found to obtain in the Talbot, and all dogs with broad heads: this excellence or superiority of the olfactory organs is further assisted by the largeness and flexibility of the lips and skin about the nose, which thus admit of a much greater extension of the olfactory nerves, and render them more susceptible of external impressions. The olfactory nerves resemble a bunch of small white cords, one end of which is connected with the brain, while the other, descending the head, spreads into numerous ramifications, reaching to the edges of the lips as well as to the extremity of the nose.

(*To be continued.*)

MISCELLANEOUS.

FORMATION OF CHARACTER.

It is ever to be kept in mind that a *good name* is in all cases the fruit of *personal exertion*. It is not inherited from parents; it is not created by external advantages; it is no necessary appendage of birth, or wealth, or talents, or station; but the result of one's own endeavours—the fruit and reward of good principles, manifested in a course of virtuous and honourable action This is the more important to be remarked, because it shows that the attainment of a good name, whatever be your external circumstances, is entirely within your power. No young man, however humble his birth, or obscure his condition, is excluded from the invaluable boon. He has only to fix his eye upon the prize, and press towards it, in a course of virtuous and useful conduct, and it is his. And it is interesting to notice how many of our worthiest and best citizens have risen to honor and usefulness by dint of their own persevering exertions. They are to be found in great numbers, in each of the learned professions, and in every department of business, and they stand forth, bright and animating examples of what can be accomplished by resolution and effort. Indeed, my friends, in the formation of character, personal exertion is the first, the second, and the third virtue. Nothing great or excellent can be acquired without it. A good name will not come without being sought. All the virtues of which it is composed are the results of untiring application and industry.

Thousands of young men have been ruined by relying for a good name on their honorable parentage, or inherited wealth, or the patronage of friends. Flattered by these distinctions, they have felt as if they might live without effort—merely for their own gratification and indulgence. No mistake is more fatal. It always issues in producing an inefficient and useless character. On this account it is that character and wealth rarely continue in the same family more than two or three generations

In the formation of a good character, it is of great importance that *the early part of life be improved and guarded* with the utmost carefulness. The most critical period of life is that which elapses from fourteen to twenty-one years of age. More is done during this period to mould and settle the character of the future man, than in all the other years of life. If a young man passes this season with pure morals and fair reputation, a good name is almost sure to crown his maturer years, and descend with him to the close of his days. On the other hand, if a young man in this spring season of life, neglect his mind and heart; if he indulges himself in vicious courses, and forms habits of inefficiency and slothfulness, he experiences a loss which no efforts can retrieve, and brings a stain upon his character which no tears can wash away.

Youthful thoughtlessness, I know, is wont to regard the indiscretions and vicious indulgencies of this period, as of very little importance. But, believe me, my friends, they have great influence in forming your future character, and deciding the estimation in which you are to be held in community. They are the germs of bad habits; and bad habits confirmed are ruin to the character and the soul. The errors and vices of a young man, even when they do not ripen into habit, impress a blot on the name, which is rarely effaced. They are remembered in subsequent life; the public eye is often turned back to them: the stigma is seen; it cleaves fast to the character, and its unhappy effects are felt to the end of his days.

A fair reputation, it should be remembered, is "a plant delicate in its nature, and by no means rapid in its growth." A character which has cost many years to establish, is often destroyed in a single hour, or even minute. Guard, then, with peculiar vigilance, this forming, fixing season of your existence.

[*Hawes' Lectures to Young Men.*

Wool.—The public sales by Messrs. Coolidge, Poor and Head, on Thursday, went off heavily, although there was a good attendance. The average prices were about 15 per cent. lower than previous sales. A large part of the Saxony wool, recently imported from London and Germany, was withdrawn, cost and charges of importation not having been bid. The American fleece wool sold low. Selected Saxony and Merino fleeces, very clean washed, brought from 44 to 48 cents. Clean washed Grade wool 30 to 34 cents. One beautiful lot of fleeces, taken from imported Saxony sheep, clean washed, brought 60½ cents. [*Boston Courier.*

Animal Food.

An idea prevails, that animal food is indispensable to sustain the vigour of the body. A London coal-heaver must have his ale and beef. An Arab carries his load across the desert, and lives on dates and milk, or bread and oil; he runs faster, and lives longer on this simple diet than your beef-eaters.

THE FARMER.

Baltimore, Friday, December 26, 1828.

☞ *A few words from the Editor of the American Farmer, to his Readers on the approach of the New Year.*

Being on board that magnificent steam boat, the Independence, coming from French-town to Baltimore; and a little tired of chatting and of reading, even sage maxims in the beautiful language of Fenelon; we leaned the head upon the hand, and began thus to commune with our patrons.

The New Year being at hand, thought we to ourselves, may we not presume on the kindly feelings to which the heart is opened by the season, to offer a word of advice to our generous patrons? and the first reflection that occurred, was on the *general neglect of farmers to keep accounts.*

Can we any longer be surprised, said we, at the misfortunes of so many farmers, when we make the single reflection, that perhaps not one in five hundred of them, attempts to keep any regular set of *accounts*, or even memorandum book, approaching to a statement of his *income and expenditures?* Is there any other pursuit, or calling, in which common prudence is so much lost sight of, as in this almost universal neglect on the part of those who cultivate the soil? Let not those who are guilty of it, flatter themselves that the general result is not affected, at the year's end, by their omission to keep an account of things sold, and of bills paid! No delusion is more mischievous; and scarcely any, we should suppose, more obvious. The man who fails to note his expenses, and to compare them with his means, is always persuading himself that the former are less and the latter greater than they really are, and of course that his affairs are not falling into a ruinous condition. Where facts to the contrary do not stare us in the face, we easily believe what we wish to be true, and gratify a thousand wants, whether real or imaginary, that we should be obliged to repress, if we would only keep ourselves constantly posted up as to the exact extent of our means of payment. Moreover, a man who buys on credit and does not make himself every day familiar with his means, extends the sphere, and multiplies the objects of his desires, until, by the habit of indulgence, things become necessary to his comfort, and his happiness is disturbed by wants that would otherwise be regarded as superfluities, equally beyond his reach and his desires. When the day of reckoning comes, and he finds himself involved on every side, it is in vain that he reviews his course of mismanagement, in which the plainest dictates of judgment and prudence have been totally disregarded. He may see, but it is too late, that if he had kept even a rough account of income and expenses every day, that nothing short of madness could have induced him to transcend so far his resources.

"Gain may be temporary and uncertain; but ever while you live, expense is constant and certain:" therefore, keep an account of them.

What would be said of the merchant, or the tradesman, who should buy ships and export merchandise—purchase materials and fabricate commodities, without keeping an account of the cost on the one hand, or the sales on the other? What bank would discount for such a merchant? What prudent farmer would choose to sell to him on credit? Yet is it not notorious that a very great majority of the farmers cannot tell what have been their sales or their disbursements any one year since they have had the management of their estates. Surely it cannot be that there is any thing so complicated or laborious in the performance of a duty so indispensable to the preservation of their estates and their families. The simplest form of entry would answer their purpose. A common day-book, in which an entry should be made *every night*, of the day's receipts and monies paid away, would serve as a register of facts, which might afterwards be thrown into some more systematic yet simple form. We do know one gentleman who has very carefully for many years past, journalised every night each occurrence of the day; until at last it has become an inveterate habit, if not an agreeable amusement. He can go back for twenty years, and tell what cow calved, how much pork was killed, where and how such orchard grass seed was sowed, who dined with him, and how the mercury ranged, what horse died, or which child was born, on any particular day of any year. Would that when we commend, we could hope that his neatness, his particularity, his perseverance would be taken as an example and followed by all our readers.

We could name another individual, not a thousand miles from Annapolis, who *keeps accounts* of small things as well as great, knowing that if we take care of the pence the pounds will take care of themselves.

He can turn to his neat little farm books for any week or day since he commenced years back, and shew you the amount of the sales, and of each item—whether it were a gallon of milk, a pound of butter, a head of cabbage, a quarter of veal, or a leg of mutton: in a word, he always knows the exact state of his *treasury*. Yet he is never pressed for time—he gains that by using it systematically.

"Sloth makes all things difficult, but industry all things easy, and he that riseth late, must trot all day."

And what, reader, is the result of this habitual comparison of the out-goings with the in-comings, which we present to you in the example of an old and constant friend? Just that delightful result which naturally springs from method, and an invincible resolution to know every day, and constantly and precisely, *how things are going*. His cattle are improving, his sheep are in good condition, his crops are gradually augmenting, his land is in a course of progressive and regular melioration—he turns all things to account—suffers nothing to be wasted, and clears by a fair account more than six per cent; and enjoys above all, the greatest of blessings, a constant sense of exemption from debt.—So firmly are we persuaded of the vital importance of reform in the habits of farmers, on the subject to which we have here so hastily adverted, that we most cheerfully, and do hereby, offer a premium of a volume of the American Farmer, and the Memoirs of the Pennsylvania Agricultural Society, to the gentleman who will within sixty days, furnish us with the best essay on the subject of farm accounts, with the simplest form of doing it—being an actual copy from his own books for a given time, without his name, of course, if he does not choose to give it. The premium is too trivial for any effect, but to shew our earnestness. Follow, kind friends, the train of our thoughts, and remember, "if you will not hear reason, she will surely rap you on the knuckles," as poor Richard says.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS GENERALLY.

The subscriber has on hand, ready for sale, a supply of his Cylindrical Straw Cutters, a machine he believes to be superior to any other in the world for that purpose. Brown's Vertical Wool Spinner, a very useful and simple machine for private family use, perhaps not equalled by any other. A full assortment of Gideon Davis' Patent Ploughs; the superiority of these over all other ploughs is so generally known, that to speak of their merit is unnecessary. A general assortment of highly improved Barshare Ploughs; Corn and Tobacco Cultivators; Patent Corn Shellers; Wheat Fans, warranted equal to any in the state of their size; Harrows; Double and Single Swingle Trees; Shovel and substratum Ploughs; superior Caststeel Axes; Mattocks; Picks and Grubbing Hoes; superior Oil Stones and Points, and Heels, of all sizes for Davis' Patent Ploughs, always on hand. Blacksmith work and repairs done at short notice and at customary prices. The subscriber intends keeping no article for sale in his line, but such as will give satisfaction to his cus-

Orders received for Fruit Trees from Gray's Nursery. All orders received by mail (post paid,) will receive due attention. JONA. S. EASTMAN,

No. 36 Pratt-st., opposite Marriott & Warfield's hotel.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 3.00 *a* 8.00—red, 3.50 *a* 4.50—fine red, 5.00 *a* 7.00—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 4.00 *a* 7.00—yellow, 4.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rappahannock 2.75 *a* 3.50—Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $9.50 *a* 10.00—superfine Howard-st. 8.00 *a* 8.50; city mills, 7.75 *a* 8.00; Susquehanna, 8.00—Corn Meal, per bbl. 2.75—Grain, best red wheat, 1.55 *a* 1.65—best white wheat, 1.65 *a* 1.75—ord'y to good, 1.40 *a* 1.56—Corn, old, .46 *a* .48—new corn, .44 *a* .46—in ear, bbl. 2.00 *a* 2.25—Rye, bush. .50 *a* .55—Oats .23 *a* .26—Beans .75 *a* 1.25—Peas .45 *a* .55—Clover seed, 5.00 *a* 5.50—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.50—Herd's 1.00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, .25—bbls. .26 *a* .26½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.00; No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork. 4.50 *a* 5.50—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Richmond Enquirer.)

ON GYPSUM—AND ITS USES IN AGRICULTURE.

Gypsum, or Plaster, as it is commonly called, is a kind of earthy salt, composed of lime, sulphuric acid and water. When pure, these ingredients enter into its composition in the following proportions, in each 100 parts, viz:

Lime, ...	32	to	34
Sulphuric acid, .	46	to	48
Water, . . .	22	to	18
	100		100

Besides the various uses to which it is applied in the arts, it is an article highly recommended in agriculture as a great fertilizer of the soil and promoter of vegetation.

It is in this latter view that the writer of the following remarks wishes it to be considered, being well satisfied that it deserves the particular attention of the citizens of Virginia, and more especially of those in the middle and lower sections of the state, where their lands have been cultivated generally with less care, in regard to their preservation, and are considerably more deteriorated and exhausted than those in the valley and mountain country.

It is employed by agriculturists in a variety of ways, and always with the happiest effects, when pure and properly applied. It is sometimes sown over cultivated grasses, grain, and other vegetables, as a top dressing. Grain and seeds, after having been moistened, are often rolled in it, previous to their being sowed or planted. And, occasionally, it is dropt in the hills with corn, &c.

In the application of it, as a top dressing, attention should be paid to the times, season of the year, and growth of the plant; choosing a close, still, damp day, or still, foggy morning, as the wind blows it about too much, and in dry weather it is not apt to stick well to the plants. Some are of opinion that the best time to dress young clover, sowed down on grain, with it, is when it gets three leaves; others advise to defer it till the grain is cut off. For old clover, the best time appears to be as soon as vegetation commences in the spring. Tobacco should be dressed with it when the plants begin to spread the hill, and corn, when about half a leg or knee high.

When it was first introduced among us as an article of agriculture, the very high encomiums bestowed upon it, and the almost incredible accounts related of its wonderful effects on vegetation, induced many of our farmers and planters to engage in the use of it, fondly hoping, no doubt, that with the aid of clover and plaster, they would be enabled, in a few years, to resuscitate their worn out and exhausted soils, and impart to them a degree of fertility equal, if not superior, to what they originally possessed. But the result of our experiments has not been such as to sustain the exalted character it had acquired. For, although in some instances its effects were truly astonishing, its operation in general appears to have been very uncertain. And we have often had the mortification to witness, after having encountered much trouble and expense in procuring and applying it to our crops, that it was productive of no perceivable benefit. A consequence so discouraging seems to have brought it somewhat into disrepute. So that, far from being in general use at this time, as might have been expected, even those few who thought well of it at first, and were anxious to bring it into notice, have themselves become, in some measure, disgusted with it, and there are even some grounds to apprehend, unless something shall be done to restore it to confidence, that it will ultimately be abandoned altogether. A misfortune the more to be deplored, because nothing is more certain than that, when pure and judiciously applied, there is not a greater fertilizer known. And, indeed, without the aid of some such powerful substance, it is believed to be utterly impracticable, after the lapse of a long series of years, so to improve our lands as to give to them that degree of fertility of which they are susceptible.

To trace this uncertainty in its operation to its source, and to point out the means by which in future it may be avoided, would be to re-establish it in the public confidence. As our planters and farmers would, undoubtedly, freely employ it, could they be well assured that, in laying out their money in the purchase of it, they would no longer be subjected to the hazard of a disappointment. This will now be attempted.

It has already been stated that gypsum was composed of lime, sulphuric acid and water. And, by an attention to the relative proportions of each, it will be seen that, when pure, the sulphuric acid amounts to nearly half its weight.

The quantity usually sown on an acre is a bushel, in which, as a bushel of ground plaster is said to weigh about eighty pounds, there would be

Of Lime, . . .	25.60 lbs.
Sulphuric acid, . .	36.80
Water, ...	17.60
	80.00

Now, it must be obvious that 25.60 lbs. of lime, which would amount to little more than a peck, could not possibly produce any visible effect when spread over an acre of land. The quantity of water (17.60 lbs.) would be next to nothing; and that, therefore, all the operative virtue of the article must reside in the sulphuric acid.

Hence it may rationally be inferred that, generally speaking, whenever the plaster fails to act, it is in consequence of a deficiency in the due proportion of this latter ingredient: an idea that will receive much countenance from an examination of its properties, some of which will be found peculiarly adapted to the promotion of vegetation. Such as its capacity for attracting moisture from the atmosphere—and, when combined with it, of generating heat. Thus affording, in itself, two of the four great essentials. For, whatever may be the opinions of some philosophers respecting the gaseous and etherial elements of vegetation, in practice it is found that nothing more seems to be necessary, in addition to soil of a proper texture and judicious cultivation, than light, heat, air and moisture, distributed in due proportions.

It would certainly be highly proper that the legislature should extend the benefit of the inspection laws to the article of plaster, and establish inspections of it at suitable places, not only as affording relief and security to the purchaser, but as a measure of precaution, it being understood on good authority, that much of the refused gypsum at the north, where they have inspections established, is ground up and sent to the south, by fraudulent dealers in the article, for sale.

But, in the mean time, to enable those purchasers who are not conversant with it, to judge at once of its purity, without the possibility of being deceived, it is deemed proper to state that nitrous acid, commonly called aqua fortis, forms an unerring test. They have only to drop a small quantity of it on the plaster, (whether ground or in the rock, makes no difference,) and if it causes an effervescence—a foaming and frothing similar to what is observed when strong vinegar is poured upon chalk, it is a proof of its impurity. And the degree of impurity may be pretty well ascertained by the mildness or vehemence of the effervescence.

Lime has a great affinity for all, *or most* of the acids, whether mineral or vegetable, and will effervesce with any of them. But its attraction for the sulphuric acid is much more considerable than for the nitrous acid, and, therefore, when fully saturated with the former, the latter can exert no influence on it. For it is a law of chemical action, that two substances having an affinity for each other, being brought into contact, under suitable circumstances, they will unite and combine together in such manner that they cannot be again separated, but by the presence and intervention of some third substance, having a greater affinity for one of the combined bodies than they have for each other.

When, then, the nitrous acid is perceived to act upon the gypsum, it is a proof that the sulphuric acid not having been in a quantity sufficient completely to saturate the lime, it has only been partially converted into gypsum, and that a portion still remains unchanged, which is the part acted upon by the nitrous acid.

In whatever way the plaster may be applied to crops, it must first undergo decomposition. For so long as it remains undecomposed, the sulphuric acid, the operative material, will be neutralized by the lime, and will not be in a condition to act on the atmosphere, and the plaster will have no more effect than so much sand, or a like quantity of any other pulverized rock.

By what the decomposition is caused, it is difficult to determine; but that it is something, probably carbonic acid, derived from the air, is rendered highly probable from the circumstance that it will remain inoperative if buried too deep under ground. That it is an acid, and acts altogether on the lime, is obvious, otherwise the sulphuric acid would not be set free in a perfectly disengaged state, but would only enter into a new combination, be neutralized as before, and remain perfectly inactive.

The best effect of plaster seems to be as a top dressing, used on dry land, and in cool, dry weather; as in very wet seasons, and on low, flat, wet land, its influence is not very discoverable.

As to the modus operandi, or manner in which plaster acts, it appears to be very generally imagined that it possesses the power of stimulating the earth into preternatural action, and that, however beneficial it may be at first, it will alternately, by long continued use, produce exhaustion, and cause more injury than ever it did good. An opinion, probably growing out of the fact that a long and unremitted use of it brings about that condition of the soil denominated "plaster-sick."

The subscribers to this doctrine seem to consider the earth somewhat in the light of a lazy, sluggish beast, that may be forced into a motion greatly beyond its natural gait, but if continually put forward in this way for too long a period, its spirits become broken, its strength exhausted and it finally tires and becomes incapable of further exertion, until, by rest, it has been enabled to recover its wonted vigour.

This opinion, taken up hastily, no doubt, and without much reflection, but bearing the authority of some great name, and wearing the air of plausibility, seems to have been as incautiously adopted, merely because men in general had rather subscribe to any opinion, on difficult subjects, that had the plea of plausibility and ingenuity on its side, and was ready made up to their hand, than be at the trouble and pains of reflecting and forming one for themselves. But as light, heat, air and moisture are alone essential to vegetation, there was the less necessity for resorting to the stimulant properties of gypsum and the excitability of the earth: it being believed to be a well established fact that the only, or at least the chief office of the earth, is simply to serve as a matrix or bed for plants to grow in, and as a kind of laboratory in which the various processes of vegetation are elaborated.

Much, to be sure, depends on the nature, texture and preparation of the soil, which should be such, either naturally or artificially, as readily to imbibe moisture and to permit only of its gradual escape, that as much nourishment as possible may be retained to feed the roots of the young plants and to admit of an easy extension of them.

When, therefore, the soil is not naturally such as we would have it, it should be our business to make it so. Sand is open, warm and generous; freely receiving and as freely parting with heat and moisture. Clay, on the contrary, is cold, difficultly penetrable, and very retentive. Thus, when our soil is too sandy, we should dress it with clay. When clay too much abounds, with sand. Attention to the texture of the soil is as necessary as manuring: for, unless that is of a suitable quality, it is scarcely possible, by any preparation we can give it, to afford to manure an opportunity of exerting its full power; the chief virtue of which, it is believed, resides in its liquescent salts, which readily attract moisture from the atmosphere, and generate heat by thus hastening the decomposition of its putrescent particles; in this way producing effects similar to those of plaster.

Lands rendered sterile by an excessive use of plaster, and which are then said to be "plaster-sick," are observed to be much in the condition of stiff clays that have been run together by hasty, beating rains, and become baked, as we call it; so that when an attempt is made to cultivate them, they break up in clods, and will not produce.—This arises, not, as has been imagined, from the strength of the earth having been exhausted by too great stimulation, but from the solvent property of the sulphuric acid contained in the plaster, (for, besides its two before mentioned properties, it is also known to possess that of a solvent,) which, by dissolving a portion of the ferruginous and other mineral matters contained in the earth, and converting them into clay, ultimately renders that soil stiff and obdurate which before was open and free. So that the texture of the land in this case, as in that of stiff clays, is no longer such as is proper for vegetation. Being too much compacted and its particles too closely wedged into one another freely to receive, retain and gradually transmit heat, moisture, &c. But this is a discovery which leads at once to the remedy; for in both cases it becomes necessary that these lands should be dressed with sand, which should be ploughed and mixed with the earth so minutely as to divide and separate the particles of clay and keep it loose and open; when, no doubt, "plaster-sick" lands, as well as those that are sterile and unproductive, from being naturally too stiff and clayey, will be quickly restored and made to produce as well as ever.

The idea of dressing lands with sand or clay, according to circumstances, seems as yet to have been but little thought of in Virginia. Nothing, however, is more certain, than that, if judiciously applied, they will be found equally as valuable as any other dressing we could give them. These things are now as well understood in England as any other process in farming. There pits both of sand and clay are opened, and frequently they are carried the distance of many miles: it being a well known observation there, that the first step towards improving lands, if not naturally of a suitable texture, is to make them so artificially; because they know that this is necessary to give to manure its full effect.

Formerly, before this was well understood and attended to, and previous to the introduction of gypsum, they attempted the improvement of their lands with marl. It succeeded very well at first, but by an incautious and excessive use of it, they finally rendered them barren and unproductive: and, in some instances, they are said not to have perfectly recovered in less than eighty years. Marl is a fat, unctuous kind of earth, and very tenacious; hence, when used in too great quantities, it has the effect of binding the soil, and causes it to become so close and cohesive as to render it unfit for useful production. Such lands might have been said to be marl-sick, and would have required the same remedy as those that are now said to be "plaster-sick," and I may add that are clay-sick.*

Burning stiff lands has nearly the same effect as sanding of them, by indurating the particles and bringing them somewhat into the condition of pounded bricks.

A FRIEND TO AGRICULTURE.

[*Note by the Editor of the American Farmer.*—We have lately conversed with several farmers of experience, who have used plaster of paris for many years. Their impressions appear to be, in brief: that land which was rapidly brought some years from a state of exhaustion to a state of fertility, by the use of plaster to promote the growth of clover, and to which land plaster had never before been applied, being since reduced by culture to its original degree of infertility, *that land* refuses to be acted upon again by plaster in any thing like the degree which it produced when formerly applied.

(From the Southern Agriculturist.)

ON THE CULTURE OF RICE.

Queries on the Culture of Rice; by WILLIAM WASHINGTON, *with Answers by* T. F. GODDARD.

DEAR SIR, *Georgetown, S. C. October 13th,* 1828.

Your favour of the 27th July came duly to hand, and I should have answered it ere this, but circumstances have prevented. The object of your inquires appears to be, to arrive at the best mode of cultivating rice, on which subject planters differ, I shall answer your interrogatories to the best of my experience, which is comparatively small; I therefore give an opinion with more reluctance, having cultivated cotton and corn until within a few years past. I have, however, been pretty successful in the cultivation of rice; suffice it to say, that it would afford me pleasure, to learn that your interest had in any way been promoted, by the present communication.

1st. What preparation do you give your land before you begin to plant?

Ans. Let your trunks and banks be made as tight as practicable, your land well drained and then turned deeply, with the hoe or plough; the latter I use principally, and prefer. I prefer, on old land, that the stubble should be turned in, and that as early as convenient after harvest.

2d. When do you begin to plant?

Ans. I should commence planting about the latter part of March, not that I think the rice better than that planted later, but the reverse; it sometimes, from the cool weather, comes up badly, and grows badly, while that planted later, after the weather sets in warm, comes up, and grows infinitely better. There is this thing to be recollected, where one plants largely to the hand, it is absolutely necessary to commence early, so as to get through in due season. I work strong handed, and my reason for commencing early is, that the birds which make their appearance in the spring, are not so troublesome as they are upon rice planted later in the season.—There is another reason, that early planted rice is not apt to be so troubled with rice birds in the fall, which are sometimes very destructive. My last and ostensible reason is this, that by planting early there can be such a time allowed between your planting, that the harvest will be much better, not having the whole crop, as it were, upon your hands at one time; in such case, the waste, of course, must be great. This, I think, an important consideration.

3d. Do you select your seed, and how do you know the best seed? Do you prefer seed from the north or south, and how often do you change your seed?

Ans. I select my seed rice from that part of my crop most free from volunteer—that you can ascertain by rubbing off the hull of a handful or two, which will give you at once the quantity of red rice. Where there is not more than three grains of volunteer to the hundred, I should call it very fine seed. I think there is an advantage in changing seed occasionally, even from one soil to another, but should be governed principally in changing my seed, from the proportion of red it has; whenever it becomes polluted, I, of course, would change my seed. The seed I plant I procure in this neighbourhood; I am, therefore, unable to say whether seed from the north or south is best.

4th. How many rows to the task, or quarter of an acre? How many bushels of seed to the acre?

Ans. I plant fourteen inches apart, which will give you about ninety rows to the quarter of an acre. The quantity of seed used for an acre of land, is from two bushels to two and a peck; I plant the latter quantity.

5th. Do you scatter in the trenches, or, as it is technically called, string plant?

Ans. I string plant, and for this reason, where the seed is much scattered in the trenches, it is liable to be cut in hoeing, and it is more difficult to pick out the grass.

6th. Do you point flow, and if so, assign the reasons?

Ans. I point flow my rice, if I cover with earth, as is usual, but when I plant without covering with earth, the water is put on, and kept such a time as to answer for both the sprout and point water. I would assign the following reasons for the point flow, to wit: that it destroys the first growth of grass, and the rice is put out of the way of birds, and it prevents worms, which sometimes takes rice in the young state.

7th. How many times do you hoe, before you put on the water? How long do you keep on the water?

Ans. I should always hoe twice, if I could, before I put on what is called the long water. I keep on the water from twelve to fifteen days, according to circumstances.

8th. If in grass, would you put on the water or not? What do you call a good crop to the acre, or to the hand?

Ans. I should never put water on grassy rice, if I could avoid it, but would put it on before it became so; but if I had grassy rice, and I could not give it work, I would put on the water so as at least to check the growth, until I could work it. I call fifty bushels a good crop to the acre, or twelve and a half barrels to the hand.

9th. Have you ever ploughed your land while the crop was growing, or do you object to it, and why?

Ans. I never have ploughed my rice, nor do I think it can be done without injury, planted at no greater distance than above stated.

10th. Do you keep your land dry all the winter, or do you flow it?

Ans. The first thing I do after I get my fields picked, or gleaned, as it is termed, I put on the water while the weather is yet warm, so as to sprout what rice there may have been wasted in the harvest. Then it is to be dried for turning; after which, I would flow again, as the sediment from the water is an advantage to the land. In due season the water must be taken off, to dry the land for planting, when you turn in, either with the hoes or harrow, as you may prefer, to mash and prepare for trenching. In trenching, I use the trenching hoe and plough. The plough I like, on account of lessening labour, and the facility it gives in planting.

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* It is an old saying in England, that
"He who marls sand buys land—
He who marls clay throws all away."

11th. Have you ever used salt, or brackish water, and what has been the result? Have you ever used lime on your land, and how do you apply it?

Ans. I have no experience in the use of salt or brackish water, but I certainly would use brackish water, if I had a crop suffering for water, and could get no other, using the precaution to change it often, and flow deep. I am not aware of the good effects which might result from the use of lime, never having tried it.

12th. How do you know the best time to cut rice, and what is the task of a labourer in harvest?

Ans. Those acquainted with rice, can tell from the general appearance, and from examining it when it is fit to cut; but I know of no better criterion to go by, that when the milk is hard in the bottom grains. Rice cut at that time, will stand pounding much better than when it is suffered to get too ripe. The task of a prime labourer, in harvest, is to cut a half acre; when rice is to be taken in, the task is to cut a quarter of an acre, and to carry the same quantity to the yard.

13th. Is there any peculiarity in your preparation of rice for market.

Ans. The gentleman whom I have in my employ gives a good deal of his attention to the mill; I also give it a good deal of attention, it being contigious to me. My mill I endeavour to keep in good order; I have a very fine pair of mill-stones, which I think is a very important part in the preparation of rice, to be well ground; and I have had a horizontal bush screen made, in addition to the one I had, which gives a very fine polish to the rice. I know of no other peculiarity in the preparation for market.

14th. Have you ever cultivated Guinea corn, as a provision crop, and if so, what do you think of it?

Ans. I never have planted the Guinea corn as a provision crop; I, therefore, have no experience as to the production of it.

15th. Have you ever practised a succession or rotation of crops, and if so, which do you most approve of?

Ans. I never have tried a rotation of crops on my rice lands; I am, therefore, unprepared to say, what would likely succeed best. I have no doubt, however, that either corn or cotton, could be cultivated to advantage on it, but being adapted to rice, my impression is, that it pays better in that culture than any other.

16th. Should the river or creek, upon which your lands are situated, turn salt, from great drought, what mode of attendance would you pursue?—Would you take in water before it did turn salt, at a time when the rice was not in actual want, or would you let the water by? Do you ever hoe your rice while your fields are filled with water?

Ans. As stated before, I have no experience in salt water, but if allowed to give the opinion of inexperience, I should say, take in water previously to its becoming salt, notwithstanding the rice may not be in actual need; on the contrary, if, from any circumstances, I had been prevented from taking it on previously to its becoming salt, I would keep the land as dry as possible, and stirred with the hoe as often as practicable, until perchance the rainy season should set in, when I would be enabled to get fresh water. I am a strong advocate for the land to be dry, when I hoe it, if it is to be of any service to the rice, or to kill the grass; I therefore never hoe when my rice is flowed, excepting on the hill spots, which cannot be flowed to advantage. After the rice is laid by, we slack the water and pick the grass out, when the water is raised on it again.

I had a very early harvest the last season, and having a favourable opportunity, I determined to try the experiment of a second crop. I accordingly requested the gentleman who had the management of my plantation, to put on the water as soon as the field was gleaned, which was accordingly done. The fall was favourable for it, but there was, notwithstanding, a great deal of light rice, in consequence of having frost before it matured, but there was some very good rice from it. I do not know that the labour was well recompensed; it was taken in, however, after the last of the crop had been secured.

I cannot dismiss the subject without a few remarks, which may not be out of season. There are very few gentlemen of my acquaintance, owning plantations, who remain on them the season through, either from the effects of climate, or other causes; consequently, their business must be entrusted to an agent. Notwithstanding, in some instances, the planter is so contigiously situated to his plantation, as to visit it during the summer, whereby he is enabled to give any direction he may deem proper, while the crop is growing, yet there are circumstances occurring on a plantation, that require daily attention; and that is the reason I think it to the interest of every planter to have an overseer that he can confide in, for our interest greatly depends upon his attention and good management, both as it regards the crop, and, which is more important, the care taken of, and the comforts rendered our people. With these remarks, I leave the subject for your consideration.

I am yours, respectfully,

THOMAS F. GODDARD.

LARGE CORN.

The Counties of Accomack and Northampton versus 104 *others in Virginia, and all Maryland.*

Mr. Skinner: *Baltimore, Dec. 22d*, 1828.

In a late number of the Farmer, I observed on record, the great altitude of a corn stalk raised on the lands of Mr. Jeffreys. It must be admitted that this stalk was of uncommon height, yet the gentleman gives no account of its fruitification. A corn stalk without fruit only subserves the purposes of feeding brutes, whereas had it bore the ear of corn I send, it would also have afforded sustenance to man, and in course excited greater wonder. I am uncertain how elevated was the stalk which fostered my ear, as also another nearly equal, but nothing is more certain than that it grew in fat land, and must have had great stamina, to have sustained and afforded nutriment to its prodigious offspring.—What a pity but that my two ears of corn had been attached to Mr. Jeffrey's stalk. You will recollect that last year, (*Nemine contradicente*) I beat in horticultural products, (a turnip and cauliflower,) and I am determined to do the same this year in the agricultural line. I therefore send you an ear of corn, the product of Upshur's Neck, containing 1100 grains, and nine and a half inches in circumference, and consequently if the perimeter is to the diameter as 22 to 7, its diameter is a fraction over 3 inches. You will perceive it counts 22 rows round its surface, and 50 grains deep. Had it not been plucked a little under a state of maturity, it would have been considerably enlarged. This species of corn possesses several cardinal virtues over all others I ever used as seed. It bears shipping earlier, is less liable to rot in the field, is more prolific, and what is still better, being nearly similar in colour to their own, commands an enhanced price in the Northern markets over most other southern corn—at least I have been thus informed by more than one gentleman in New England. I feel so confident that the specimen sent cannot be beaten—that I will present a barrel thereof to any gentleman of the other 104 counties of Virginia and all Maryland, who shall deposit in your office even its equal. You shall be made umpire. Unless this is done, henceforward, let one and all of those lordly proprietors of the fertile and far famed soils of the west, cease to deride the sand hills to the eastward of the Chesapeake, those arid daughters of the ocean. I selected from my plantation, and have in Baltimore, a number of ears similar in kind, which I will distribute among such as approve the seed, and that my intentions may be known, you may make this communication public, provided you do not deem it too prolix. In such case prune it, and extract its essence. Please retain the ear in your office a week or two for the inspection of agriculturists, after which I intend it as a present to Mr Carroll of Carrollton. At the distances usual where it grew, it will plant nearly two-thirds of an acre, and if in as genial a soil return 40 bushels. This product the second year will afford seed for all his manor—the third to all Maryland. I raised this year several hundred barrels of the same order.

I am, sir, very respectfully, yours, &c &c.

ARTHUR UPSHUR.

WOAD—WELD.

J. S. Skinner, Esq. *New York, Dec.* 21, 1828.

Sir,—Yours of the 7th inst. was duly received. In answer to the communication enclosed, I have to observe, that woad and weld are two different plants. Woad is the *Isatis* used for blue dyeing, and weld is the *Reseda Luteola* used for dyeing yellow. Raising of woad in the south will not answer, it having been cultivated in the middle states till competition has brought it below the expense of cultivation. Weld is a new article, recently introduced, and might answer, if the consumers were within a reasonable distance; but the article is so light and bulky that it will not pay for much land transportation, nor even for distant water transit. Some teazles have been raised in South Carolina, but they grow so large and rank as to be of little value.

Should your correspondent be desirous of trying the weld, we can furnish him with seed. The cost is two dollars a pound, and one half pound will be sufficient for one sixth of an acre. We can also furnish him with instructions for planting, &c. The article is raised in the south of France, and transported to England.

I would recommend to our southern planters the cultivation of madder, and of Sicily sumach, (*Rhus coriarius*) as articles of more general consumption than the above, and as better suited to a southern climate.

Yours, truly,

WM. PARTRIDGE.

HORTICULTURE.

(From the New England Farmer.)

FIRE BLIGHT.

By J. Buel, Esq., of Albany.

Fire Blight is still employed to denote the new malady which destroys our pear and apple trees; and the cause, by many, is imputed still to the malignant influence of the solar rays, which, since the world began, have given life, growth and maturity to the vegetable creation.

It is a sound axiom that like causes produce like effects. If the sun does the mischief, why has it not done the like for centuries before? Has the benign influence of its rays changed; or have the laws of vegetation altered, within the last few years? The tumors on the plum and morello cherry, which in some districts have operated to the almost entire extinction of these valuable fruits.

have been ascribed to a spontaneous extravasation of sap, and to other equally erroneous causes. But it has been satisfactorily shown, by eminent naturalists, as well as practical gardeners, that this disease originates from the poisonous puncture of an insect, probably but a short time among us, which operates upon the vegetable blood like the poison of a rabid animal upon the human system, causing disease and death. But as the circulation is infinitely more rapid in the animal than in the vegetable, the cure in the latter is more easy and certain. Governed by this opinion, I have persevered in cutting off and burning the diseased branches, until I have overcome the evil, although some gardens in the vicinity are as much afflicted as ever. I have some thousands of the plum and morello cherry on my grounds, and have found but one diseased tree among them during the season, and that came into my possession last spring. Forty years ago the Hessian fly was unknown to us. New enemies to our crops are annually recognized in the insect tribes.

I do not believe this disease is produced by the sun; because its attacks are indiscriminate, where the sun's rays are obstructed by foliage, as well as where exposed to its rays; on the north as well as the south; on horizontal as well as perpendicular shoots; and on the under as well as upper side.

I dissent equally from the theory, that it is occasioned by only deleterious matter in the soil; because it occurs where the soil has undergone no apparent change; and because, were this the case, the whole system of sap wood, through which the juices circulate before they become vegetable food, would be alike affected, and first the roots and trunk.

I object to every opinion which goes to ascribe it to atmospheric influence; because this influence would exert itself first on the leaves, the most sensitive and exposed organs, and the extremities would invariably give the first indications, which is not the case.

I do not believe it peculiar to any particular variety; because it attacks my apples as well as pears. It most abounds where the wood is most thrifty and tender. My Poir d'Auch, Winter butter, and Priestly apples, have suffered most.

It ill becomes me, after objecting to other theories, to set up one of my own, without ample proof to support it. But as my only object is to excite investigation and elicit truth, I hope I shall be pardoned for my presumption in suggesting it, unsupported as it is by any thing but casual observation and reflection.

My theory is, that the new disease of the pear and apple trees, like that of the plum and morello cherry, is occasioned by an insect which injects a matter through the bark, that poisons or vitiates the descending sap, and causes disease and death. And my reasons for this opinion are briefly—

1. That the progress of the disease is *down*, with the elaborated or proper sap, towards the trunk and root; and not *up*, with the ascending sap, towards the extremities and leaves; that it is perceptible to a greater extent on the cambium, and inner bark, than on the exterior surface. The former will be found brown, in longitudinal slips, sometimes an inch lower than the exterior is affected.—The sap frequently continues to ascend, is elaborated, and nourishes and preserves the verdure at the extremity, after the branch is affected, and the whole circle of the bark below become brown and withered; and in these cases it is not until the sapwood under the blighted part is contracted by disease, and refuses to perform its office, that the extremity perishes.

2. That the commencement of the disease, from what I have stated, is in the descending sap, is communicated next to the bark, and finally to the wood.

3. That it is most common in thrifty branches, tender bark, and new wood. And

4. That it appears only when the sap is in full flow, and vegetation luxuriant; and extends in proportion to the vigor of circulation and growth.

What the insect is that does the mischief, I will not pretend to determine. I have seen insects in the morning, so firmly attached to a branch (at the commencement of a new growth,) of an apple tree, that cutting off the limb did not disturb them; and at evening I have found many of them enveloped in the dead and curled leaves of a branch which they had probably destroyed in part. As I am no entomologist, I submitted them to a gentleman of science, who gave them the generic name of *saperda*, the specific name not being known.

Albany, Nov. 7, 1828. J. BUEL.

Effects of Ivy on Trees.

It appears to be a vulgar prejudice that ivy kills the trees it clings to. If it rooted itself, as is erroneously supposed, in their bark, and fed upon their juices, it might merit the accusation of a destroyer; but it derives its nourishment wholly from the ground, where it is rooted; and the supposed roots are only tendrils or holdfasts to enable it to climb. The opinion of its injuring trees seem to have arisen, (and very naturally too,) from the fact it prefers to climb up a dead or dying branch, and will not attach itself to very young wood at all. Mr. Repton, the landscape gardener, gives numerous facts to show that trees overrun with ivy, so far from being injured by it, grow most luxuriantly. Evelyn says, that when the ivy is stripped from trees, they are often killed by cold in the ensuing winter.

Large Pear.

At a late meeting of the Royal Horticultural Society of Paris, a gigantic pear was exhibited, of the following dimensions: circumference, 15 inches, height 9 inches, and weight one pound seven ounces.

INTERNAL IMPROVEMENT.

PENNSYLVANIA CANAL COMMISSIONERS' REPORT.

(Concluded from page 326.)

A particular and very extensive examination of the Alleghany mountain, with a view to a portage between the Juniata and Conemaugh levels, has been made this season by Mr. Nathan S. Roberts. A number of projected routes have received attention, and a vast amount of useful information is embodied in his report. The results, however, are not so conclusive as to justify a decision, until some additional investigations shall have been made.

Mr. Roberts having accepted employment elsewhere, Moncure Robinson, Esq., an engineer of high reputation, has been appointed in his place He will be furnished with the notes and drafts of Mr. Roberts, and as early as possible will commence his inquiries with a view to the construction of a rail-way composed of lifts and levels, and also of a Mac-Adamized road of easy graduation, between the two canals. This latter examination is dictated from a belief that such a turnpike will be found indispensable for the accommodation of travellers having business on the canals and railways, and not from a wish to place it in competition with the first named mode of improvement, as a means of transportation for merchandize and produce.

The surveys authorized by law, for a rail-road line from "some point on the Schuylkill Canal to Sunbury, Danville and Catawissa," and for canals and railways between the Lehigh and North Branch by Nescopeck valley and other projected routes, have been ably executed by Mr. Robinson within the present season. For an account of operations so extended, embracing the whole summit between the waters of the Susquehanna and the Delaware, as far north as the Lackawanna, and branching off into innumerable lateral examinations, recourse must be had to the report of Mr. Robinson, annexed hereto. Among other results, it is ascertained that a canal by way of Nescopeck valley, is entirely practicable, although the amount of lockage will prove a serious inconvenience. It appears also, that from Catawissa, a railway suited to locomotive engines, except at the summit, where stationary power must be employed, may be carried either through Quakake valley to the Lehigh, by the Schuylkill to Pottsville, or the head of Little Schuylkill to its mouth, and that a railway conveniently adjusted for the use of horse power, may be made from Pottsville to Sunbury or Danville. Particular drafts and estimates of several of those routes, will be forwarded to the legislature as soon as they can be prepared.

Agreeably to the law of last session a further examination of the proposed line of canal from Easton along the Delaware to Carpenter's point, has been made by Major Douglass, and two estimates have been furnished, one for a canal of the same dimensions with that below Easton, and the other for a canal of reduced size, as described in the law. The cost of the larger improvement is estimated at an average of $13,309 per mile, and of the smaller at $11,678. The last mentioned sum having fallen below the maximum fixed by the legislature, a resolution determining the location of the line, has been passed by the board, but no part has been placed under contract.

At the meeting of the board in March last, Mr. Edward F. Gay, late engineer of the Conestoga navigation, was selected to execute the surveys with a view to canals and slack water navigation, directed to be made on the Alleghany, Monongahela and Ohio rivers. His instructions embraced the various modes of improvement mentioned in the act of the last session of the legislature; and a full report on each of the subjects referred to his care, is now presented. The cost of a navigation by dams, locks, and ponds adapted to steam boats, along the Alleghany river, from the mouth of French creek to that of Kiskeminetas (the plan preferred by Mr. Gay,) is estimated at $923,098, or about $10,000 a mile for 93¼ miles. He represents the construction of a canal along the Monongahela as almost impracticable; but that river may be advantageously improved in many places by dams and locks, at an expense of $265,000. The cost of a steam boat navigation from Pittsburg down the Ohio to Beaver, by dams and locks, is estimated at 221,298 dollars.

At a late period of the present season, Mr. Wm. R. Hopkins, an engineer recently in the service of the state of Ohio, was engaged to ascertain the practicability of a railroad from the west end of the Harrisburg bridge to Chambersburg, and from thence by way of Gettysburg to York. His labours in the field are now about completed, and his report, as soon as received, will be forwarded to the legislature.

In this sketch of operations within the past year, it has been the object of the board to avoid all unnecessary detail. For such further particulars as may be desired, reference is made to the numerous documents annexed hereto.

For the sake of brevity, also, they have deemed it expedient, to present at a single view, a list of all the contracts which will claim attention within the coming year. As the Eastern and Western divisions are already so far completed, that they cannot be the source of much additional expenditure, after the work already done shall be paid for.

they are left out of the account. The other lines, at a liberal estimate, will stand as follows:

Delaware, ...	$520,000
North Branch, ...	330,000
West Branch, ...	151,000
Juniata, (Lower line,) . . .	315,000
Do. (Upper line,) . .	890,000
Susquehanna division, including dam and bridge over the river, . .	284,000
French Creek Feeder, . .	76,000
From Middletown to Columbia, .	245,000
Conemaugh from Blairsville to Johnstown, ...	500,000
Part of Pennsylvania Railroad, .	200,000
	$3,511,000

It is estimated, from the experience of former seasons, that, supposing the utmost activity to be used upon all the lines within the approaching year, at least $700,000 of the aggregate exhibited by this statement, will remain to be expended in the year 1830, so that the amount required for the operations of next year, making full allowance for the sums yet to be paid on the Eastern and Western divisions, cannot materially exceed $3,000,000, and may probably fall short of that sum. Inasmuch, however, as the faith of the commonwealth is already pledged for the contracts made, it will probably be desirable, that a precise limit should not be fixed, and that full scope should be given for the execution of such contracts as early as possible.

That this statement presents a scene of operations of great extent, is readily admitted. But it is equally certain that a vigourous effort for another year will so reduce its magnitude, as to place the success of the whole system of internal improvement beyond a reasonable doubt. By the month of August next, 47 miles on the Juniata, 41 miles more on the Susquehanna, and 28 miles on the Delaware, will certainly be completed, reducing the whole distance to 184 miles. By the month of December next, the North and West Branch divisions may be ready for navigation, the Delaware line to Easton will be nearly completed, and the obligations of the commonwealth for lines now under contract, will have been reduced to a sum considerably short of one million of dollars.

Upon the view thus presented, the board would propose a system of proceeding, recommended at once by its extreme simplicity, its tendency to sustain the confidence of the public, and the certainty it affords, that the whole scheme of internal improvement adopted by the state, embracing a complete communication from Philadelphia to Pittsburg and Lake Erie, and the projected lines along the Susquehanna, its branches, and the Delaware, may be triumphantly executed within a reasonable period.

It is based upon the supposition that the whole expenditure of the coming year will be $3,000,000, which, added to the $3,300,000 already borrowed, makes $6,300,000; and also that the income from the Eastern and Western divisions next year, will equal the interest of the excess of the canal debt above six millions of dollars, at the end of that year. Upon these suppositions it is proposed:

1. That the revenue at present applicable to the interest of canal loans be so increased by legislative provisions, as to produce annually the interest of six millions of dollars, independently of all receipts from the canals.

2. That all further extensions of the lines of improvement beyond the cost of six millions of dollars, shall be made by loan, upon the credit of receipts from the finished canal, and shall be limited by the sufficiency of those receipts to discharge the interest of such further loans.

3. That as the finished portions of the canal increase in revenue, so as to exceed the interest of the loans to which they are pledged, the excess shall be applied as a sinking fund, or as a fund for the making of other valuable improvements, not included in the present system.

The Board, in offering these suggestions, desire it to be understood that they mean not to diminish the extent of the system, as already adopted, but, on the contrary, that they calculate upon its early and effectual completion. They entertain no doubt that the receipts from Canal tolls, within the year 1830, will justify the expenditure of three millions that year, if such a sum be required; and will increase from that time in a ratio fully equal to the further wants of the commonwealth in executing its system. In proof of this they remark, that during the whole of the next season, 103 miles of valuable canal will be in full operation; that at the commencement of the year 1830, the extent navigable will be 290 miles, and that within the last mentioned year, it will be extended to 350 miles, embracing sections equalled by none other in promise and importance.

They have based their calculations as to the practicability and consequences of the plan proposed, upon facts which they regard as established, and they look to its adoption, or that of some other corresponding principle, however different in detail, as essential to the preservation of public confidence, and the ultimate success of the improvements begun.

By the report of the Board in December last, the amount of contracts then existing was estimated at $2,050,000, and this amount was soon after increased to about $2,350,000, by additions on the Susquehanna and Juniata divisions, which included a bridge across the Susquehanna, an aqueduct over the Juniata, a set of outlet locks, and about four miles of canal.

To meet these contracts the means of the Board have been,

1. The balance then remaining of the appropriation of 1827, about	$ 400,000
Appropriation of 1828,	2,000,000
	$2,400,000

Of this sum, however, $150,000 have been diverted to other objects. The expenditures on new lines subsequently put under contract, amount to $110,000, and about $4000 have been drawn from the Treasury for surveys, damages, expenses of the Board, and other contingent items.

This statement has been made to account for the fact, which has in a different form been communicated to the Legislature, that the appropriation of 1828 is already exhausted, and that the exigencies of the service call for a further and immediate supply. Further particulars, as to the precise objects to which the funds have been applied, will appear by the reports of the several acting commissioners and superintendents annexed hereto.

One or two subjects remain to be presented for consideration.

At the present session of the Board, a statement has been made from a quarter entitled to great respect, that a communication between the Pennsylvania Canal, along the west branch with the river, at a point opposite Lewisburg, will be productive of convenience in a large section of valuable country. The Board appreciate fully the importance of the district, which this arrangement would accommodate, and they do not hesitate to recommend the subject to the consideration of the Legislature What may be the precise cost of such a communication, and upon which plan it might most easily be effected, they are not at this time prepared to say, but they apprehend no serious difficulty upon either point, if an opportunity be given for proper examinations.

In a number of instances, the mode of constructing the lines of improvement have already or will hereafter produce a large amount of water power, which may be disposed of on profitable terms to the Commonwealth, without injury to the public works. The dam across the Susquehanna at Shamokin, and the various dams along the Conemaugh, Kiskeminetas and Juniata, are prominent examples. At present no available power to sell or lease such water rights exist in the Board, and as the time is approaching when they may easily be made a source of revenue, the subject is urged upon the attention of the Legislature.

Under the existing laws, authorising the Commissioners to make the necessary contracts for the *construction* of Canals, a doubt has arisen at the accounting department, whether contracts for repairs done to the work, after it has been taken off the hands of the original contractor, can be considered as included. A modification of the law is therefore asked, which will enable the board promptly to make and pay for such repairs as may be required on the lines of the canal. Such lines cannot be regarded as complete, until the water has been admitted, and the accidents attending the first trial of their strength, have been remedied. In general these repairs will be made by the acting Commissioner, or Superintendent, having charge of the next unfinished line.

In one instance, however, it has already occurred, that the acting Commissioner could not find time for his additional duty. The Board have therefore appointed a supervisor to take charge of the Western Division as far as completed, and to direct the making of all necessary repairs. The same necessity may probably exist in other quarters before the close of the year, and it will be convenient that such officers have power to obtain the funds required, immediately from the Treasury. It is proposed, therefore, that all supervisors of the canal lines, who may be appointed by the board, shall give bond to the Commonwealth in the sum of $10,000, and shall be permitted to draw money to that amount, under restrictions, and with obligations to account, similar to those prescribed in the case of Acting Commissioners and Superintendents.

Signed by order of the Board,

DANIEL MONTGOMERY, *President.*

Attest.—Jos. M'Ilvaine, *Secretary.*

Canal Office, Harrisburg, Dec. 11th, 1828.

LADIES' DEPARTMENT.

THE MOURNING BRIDE-GROOM.

Written by Mr. Impey, on the marriage of Mr Coutts to Miss Mellon (now Duchess of St. Albans) the day of his first wife's death. Mr. Impey appeared at a Masquerade, dressed half in white, the other black, distributing to the company with one hand cards returning thanks for kind inquiries, and with the other favours, &c.

A tender bride-groom and a widower true,
I come equipped to whimper and to woo;
Conflicting duties, at eternal strife,
'Twixt a new married, and new buried wife;
Ladies! your pardon, if in vain I vie
Struggling between a simper and a sigh;
'Tis hard to hit all tempers to a tittle,
Some say, I cry too much—some, court too little;
And yet in me, nor grief, nor joy exceeds
Half clad in nuptial, half in burial weeds;
A hatch of billet-doux, this pocket fills,
Escutcheons that, and Undertaker's bills;
Relics and toys, for either charmer's sake,
White favours, mourning rings, and wedding cake;
Here grins a skull—there bridal diamonds blaze,
A bust from Nolleken's—a broach from Gray's
There bills from Highgate, Covent Garden here,
Who would have thought, that *Melons* were so dear!

But these are mere external mirth and woe,
I've that within me, which surpasseth show;
Outward and inward man, 'twixt cares and joys,
I vibrate, held in perfect equipoise;
My very lonks in just bisection, cleft,
The right, all frolic—all forlorn the left;
My best leg foremost speeds the nuptial race,
It's gouty brother, keeps a funeral pace;
Take then which side you will,—if neither suit,
I've pleased myself however;—Coute qu'il Conte.

THE WIFE.

"She flung her white arms round him—thou art all
Tbat this poor heart can cling to."—

I could have stemm'd misfortune's tide
  And borne the rich one's sneer;
Have brav'd the haughty glance of pride,
  Nor shed a single tear;
I could have smil'd on every blow
  From Life's full quiver thrown,
While I might gaze on thee, and know
  I should not be *alone*.

I could—*I think I could*, have brook'd
  E'en for a time, that thou
Upon my fading face hadst look'd
  With less of Love than now;
For then, I should at least have felt
  The sweet hope still my own,
To win thee back—and whilst I dwelt
  On Earth, not been *alone*.

But thus to see, from day to day,
  Thy bright'ning eye and cheek,
And watch thy life sands waste away
  Unnumber'd, slowly, meek;—
To meet thy smile of tenderness,
  And catch the feeble tone
Of kindness ever breath'd to bless,
  And feel, I'll be *alone*.

To mark thy strength each hour decay,
  And yet thy hopes grow stronger,
As fill'd with heaven-ward trust, they say,
  "Earth may not claim thee longer:"—
Nay, dearest, 'tis too much—this heart
  Must break when thou art gone;
It must not be, we may not part,
  I could not live *alone!*

SPORTING OLIO.

(From Loudon's Encyclopædia of Agriculture.)

MANAGEMENT AND WORKING OF RACE HORSES.

In the managing and working of race horses, three things are to be considered; the preparation of the horse, the conduct of the rider, and the after-treatment of the horse. The preparation of a race horse for running a race, is not the work of a few days, if there be any great dependence on the success. A month at least is required to harden his muscles in training, by proper food and exercise, and to refine his wind, by clearing his body to that degree of perfection that is attainable by art. It is first necessary to ascertain correctly the present state of the horse, as whether he be low or high in flesh; and in either case, a proper estimate should be formed of the time and means required to bring him into true running condition.

If a race horse be low in flesh, it is necessary to judge of the cause of such state, and to act accordingly. It is to be remarked, that spices are less to be depended on for this purpose than generous food, as malt mashes; and if any thing of the kind be used, let it be the simple cordial ball. [*See Am. Farmer*, vol. 10, p. 321.] Feed frequently, and by little at a time: while he is thus low, let his exercise be walking only, and by no means spare his water, or he will become hide-bound: carefully watch him, that full feeding may not disagree by making his heels swell, or his coat unthrifty; and if such appearances occur, mash him, and begin his scourings, otherwise abstain from physicking until he is in better health. As he improves in condition, increase his exercise, but not to such a degree as to make him sweat: his food must now be the best oats and beans, with wheaten or barley bread; the beans and oats are to be put into a bag, and beaten till the hulls are all off, and then winnowed clean; and the bread, instead of being chipped in the common way, is to have the crust clean off.

If the horse be *in good flesh and spirits* when taken up for his month's preparation, cordials are altogether unnecessary; and the chief business will be to give him good food, and so much exercise as will keep him in wind, without over-sweating, or tiring his spirits. When he takes larger exercise afterwards, towards the end of the month, it will be proper to have some horses in the place to run against him. This will put him upon his mettle, and the beating them will give him spirits. This, however, is to be cautiously observed, that he has not a bloody heat given him for ten days or a fortnight before the plate is to be run for; and that the last heat is given him the day before the race, must be in his clothes: this will make him run with greatly more vigor when stripped for the race, and feeling the cold wind on every part. In the second week, the horse should have the same food and more exercise: and in the last fortnight he must have dried oats, that have been hulled by beating; after this, jockies wet them with the whites of eggs beaten up, and then laid out in the sun to dry; and when as dry as before, the horse is to have them: this sort of food being considered by them as very light of digestion, and very good for the creature's wind. The beans in this time should be given more sparingly, and the bread should be made of three parts wheat and one part beans, or of wheat and barley in equal parts. If he should become costive under this course, he must then have bran-water to drink, or some ale and whites of eggs beaten together; and keep his body moist. In the last week all mashing is to be omitted, and barley-water given him in its place; and every day, till the day before the race, he should have his fill of hay; then he must have it given him more sparingly, that he may have time to digest it; and in the morning of the race-day, he must have a toast or two of white bread soaked in ale, and the same just before he is led out of the field. This is an excellent method, because the two extremes of fullness and fasting are at this time to be equally avoided; the one heating his wind, and the other occasioning a faintnesss that may make him lose. After he has had his food, the litter is to be shook up, and the stable kept quiet, that he may be disturbed by nothing till he is taken out to run.

In the choice of a rider for winning a race, it is necessary, as far as possible, to select one that is not only expert and able, but honest. He must have a very close seat, his knees being turned close to the saddle skirts, and held firmly there; and the toes turned inwards, so that the spurs may be turned outward to the horse's belly; his left hand governing the horse's mouth, and his right the whip. During the whole time of the race, he must take care to sit firm in the saddle, without waving or standing up in the stirrups. Some jockies fancy the last a becoming seat, but it is certain, that all motions of this kind do really incommode the horse. In spurring the horse, it is not to be done by sticking the calves of the legs close to the horse's sides, as if it were intended to press the wind out of his body; but, on the contrary, the toes are to be turned a little outwards, that the heels being brought in, the spurs may just be brought to touch the sides. A sharp touch of this kind will be of more service toward the quickening of a horse's pace, and will sooner draw blood than one of the common coarse kicks. The expert jockey will never spur his horse until there is great occasion, and then he will avoid striking him under the fore bowels between the shoulders and the girt: this is the tenderest part of a horse, and a touch there is to be reserved for the greatest extremity.

As to *whipping the horse*, it ought always to be done over the shoulder, on the near side, except in very hard running, and on the point of victory; then the horse is to be struck on the flank with a strong jerk; for the skin is the most tender of all there, and most sensible of the lash. When a horse is whipped and spurred, and is at the top of his speed, if he clap his ears in his pole, or whisk his tail, it is a proof that the jockey treats him hard, and then he ought to give him as much comfort as he can by sawing the snaffle backwards and forwards in his mouth, and by that means forcing him to open his mouth, which will give him wind, and be of great service. If there be any high wind stirring in the time of riding, the artful jockey will let his adversary lead, holding hard behind him, till he sees an opportunity of letting loose; yet, in this case, he must keep so close behind, that the other horse may keep the wind from him; and that he, sitting low, may at once shelter himself under him, and assist the strength of the horse. If the wind happen to be in their back, the expert jockey is to keep directly behind the adversary, that he may have all the advantage of the wind to blow his horse alung, as it were, and at the same time intercept it in regard to his adversary.

When running on level, smooth ground, the jockey is to beat his horse as much as his adversary will give him leave, because the horse is naturally more inclined to spend himself on this ground; on the contrary, on deep earths, he may have more liberty, as he will there spare bimself.

In riding up hill, the horse is always to be favoured, by bearing him hard, for fear of running him out of wind; but in riding down hill, if the horse's feet and shoulders will bear it, and the rider dares venture his neck, he may have a full loose. If the horse have the heels of the rest, the jockey must always spare him a little, that he may have a reserve of strength to make a push at the last post.

On the jockey's knowing the nature of the horse that is to run against him, a great deal depends; for by managing accordingly, great advantages are to be obtained: thus, if the opposite horse is of a hot and fiery disposition, the jockey is either to run just behind him, or cheek by jowl with him, making a noise with the whip, and by that means forcing him on faster than his rider would have him, and, consequently, spending him so much the sooner; or else keep him just before him, in such a slow gallop, that he may either over-reach, or by treading on the heels of the fore-horse, endanger tumbling over. Whatever be the ground that the adversary's horse rons worst on, the cunning jockey is to ride the most violently over; and by this means it will often happen, that in following, he either stumbles or claps on the back sinews. The several corrections of the hand, the whip, and the spur, are also to be observed in the adversary, and in what manner he makes use of them: and when it is perceived by any of the symptoms of holding down the ears, or whisking the tail, or stretching out the nose like a pig, that the horse is almost blown, the business is to keep him on to this speed, and he will be soon thrown out or distanced. If the horse of the opponent looks dull, it is a sign his strength fails him; and if his flanks beat much, it is a sign that his wind begins to fail him, and his strength will soon do so too.

The after-management of a horse who has run, includes the treatment between the heats, and the treatment after the race is over. After every heat for a plate, there must be dry straw, and dry clothes, both linen and woollen, ready to rub him down all over, after taking off the sweat with what is called a sweat knife; that is, a piece of an old sword blade, or somo such thing. After the horse has been well rubbed, he should be chafed all over with cloths wetted in common water, till the time of starting again. When it is certainly known that the horse is good at the bottom, and will stick at the mark, he should be rid every heat to the best of his performance; and the jockey is, as much as possible, to avoid riding at any particular horse, or staying for any, but to ride out the whole heat with the best speed he can. If, on the contrary, he has a fiery horse to ride, and one that is hard to manage, hard mouthed, and difficult to be held, he is to be started behind the rest of the horses with all imaginable coolness and gentleness; and when be begins to ride at some command, then the jockey is to put up to the other horses; and if they ride at their ease, and are hard held, they are to be drawn on faster; and if it be perceived that their wind begins to rake hot, and they want a sob, the business is to keep them up to that speed; and when they are all come within three quarters of a mile of the post, then is the time to push for it, and use the utmost speed in the creature's power.

When the race is over, the horse is immediately to be clothed up and rode home; and immediately on his coming into the stable, the following drink is to be given him: Beat up the yolks of three eggs, and put them into a pint and a half of sound ale, made warm; and let it be given with a horn. After this, he is to be rubbed well down, and the saddle-place rubbed over with warm water and vinegar, and the places where the spurs have touched, with the same; after this he should have a feed of rye bread, then a good mash, and at some time after these as much hay and oats as he will eat.—His legs, after this, should be bathed some time with a mixture of vinegar and water.

PEDIGREE WANTED.

Mr. Skinner, *Philadelphia, Dec.* 21, 1828.

Sir,—I am desirous to obtain the pedigree of Black Maria, and will be thankful to any of your subscribers for it, as much in detail as practicable. Black Maria was conspicuous on the turf; was at one time owned by Col. Seldon, and subsequently by Col. Tayloe, and was the dam of Lady Lightfoot.

Very respectfully, yours, J.

[We presume it may be given by Mr. C. H. H. of New York, lately, if not now, owner of Lady Lightfoot—for one of whose colts, untried, we believe $1000 was given last spring.]

MISCELLANEOUS.

ELASTIC SPRING TRUSS.

Mr. Editor—The following extract is taken from Thatcher's Modern Practice, a recent medical work of much merit. If you consider it of general importance, please to publish it in the American Farmer, and oblige A Subscriber.

With the view of guarding against the dreadful consequences of a strangulated rupture, every person subject to hernial complaints should immediately procure a well adapted elastic spring truss. Very much of the utility and safety of a truss depends not only on its being properly constructed, but also on its being fitly adjusted to that part of the body where the hernia is situated.

A great variety of trusses formed on different principles, have been from time to time introduced to public notice, but with one exception it may be asserted that they have been found altogether deficient in those just principles upon which such instruments ought to be formed. It is within a few years that a truss has been invented by Dr. A. G. Hull, a very respectable surgeon and physician of New York, and late president of the Oneida Medical Society, which is incomparably superior, in its principles and properties, to any of those previously in use. Dr. Hull is exclusively entitled to the credit of first adopting the true surgical principle for the radical cure of hernia. He happily conceived the idea that the pad of the truss should be so constructed as simply to support the muscular fibres around the ring or aperture, as much as possible in the state in which they are maintained in perfect health. Unless this be attained, the parts never can recover their natural tone, whatever may be the degree of pressure applied. This great desideratum is admirably accomplished, by giving to the pad of his new invented hinge-truss a *concave* instead of a *convex* surface, by which it corresponds to the convexity of the abdomen. By this construction it is evident that the greatest degree of pressure is applied to the circumference of the aperture which tends constantly to approximate the hernial parietes, and afford them a mechanical support. The popular truss of Salmon Ody & Co. though possessing many advantages over the ordinary trusses, having a *convex* pad, must of course press constantly upon the ring, and tend to enlarge the dimensions of the rupture opening, and act as an effectual barrier against the desired union of the parts. It is now universally allowed that Dr. Hull's hinge truss is constructed upon principles different from any truss hitherto in use, and is supposed to be perfectly original. Many other advantages peculiar to Dr. H's truss might be noticed, but we have not room to describe them here. It has now been in use several years, and the correctness of the principle upon which it is constructed, has been abundantly tested by experience. Numerous instances have occurred in which hernia has been cured by it, which had proved intractable to other trusses. Under the use of this instrument, Dr. H. has not known a single case of hernia in children, that has not been cured in less than 18 months, and few have exceeded six. The general conclusion which he forms in relation to cases is, that *the complete cures which are effected on persons from 40 to 75 years of age, may with safety be computed at an average of one to three, and universally in children.* Contrary to the general opinion of surgeons, Dr. Hull has found, by experience, that in most cases there is no necessity for continuing the application of the truss during the night. Since, therefore, Dr. Hull's truss has received universal approbation and preference, no other need be mentioned in this work.

Large Cargo.—The ship United States, of this port, cleared at Savannah on the 19th inst. for Liverpool, with a cargo of 2,025 bales of Upland Cotton.

(From the Norfolk Beacon.)

Cotton.—Thirty bales of fair quality, handsomely packed in square bales, was brought to our market on Monday, in wagons, from the farm of S. M. Nickells, of Scotland Neck, Halifax county, (N. C.) and sold readily at 9¼ cents. The growers of Cotton will always find a ready sale for the article in our market, and at prices not less advantageous than they can obtain at other places.

TREASURY STATISTICS.

From the tables and statements annexed to the Report of the Secretary of the Treasury, we compile some details of general interest. Fractional cents are in all cases omitted.

The amount of the debt on the 1st of January, 1829, will be	$58,362,135
Of this amount there is bearing interest at 3 per cent.	13,296,249
" " " 4 1-2 do.	15,994,064
" " " 5 do.	12,792,000
" " " 6 do.	16,279,822
The annual charge of interest upon this debt is	$2,835,005

The whole of the 6 per cent. stock is now redeemable; and will, doubtless, in the course of the next and the subseqoent year be liquidated; which, in addition to the amount of principal, will reduce the annual charge for interest nearly a million of dollars. Moreover, of the 5 per cent. stock, seven millions are due to the Bank of the United States, which pays back in the shape of dividends from one to one and a half per cent. more than it receives as interest on the debt.

The whole ordinary expenses of the government, including interest on the debt, but no redemption of the principal, may be stated in round numbers, at - - - -	$15,000,000
The ordinary average revenue may be put at - - -	23,000,0000
Leaving an annual ordinary surplus towards extinguishing the debt, or any other public purposes, of	$8,000,000

During the year 1827, there was imported and consumed of merchandize, paying an *ad valorem* duty, $47,552,803, producing in duties, $11,702,554; making an average a little over 25 per cent. on the value of the imports.

The specific duties, after in like manner deducting the drawbacks, produced $11,350,348

Of the articles from which these were collected, there were—

	Gallons.	Average duty.	
Of *Wines*	2,989,760	23.68	707,994
Spirits	3,465,302	44.66	1,547,769
Molasses	13,127,933	5 cts.	656,396
Teas	5,372,956 lbs.	32.62 do.	1,800,849
Sugar	5,123,515 do.	2.05 do.	1,681,850
Coffee	31,895,217 do.	5 do.	1,594,760
Salt	3,431,163 bushels,	20 do.	686,232

Of the *Wines*, there were of *Madeira* 116,584 gallons, paying *then* a duty of 100 cents per gallon. After the 1st proximo, that duty will only be 50 cents; and we shall doubtless find a consequent increase of consumption. Of wines of all sorts paying the lowest duty of 15 cents per gallon, there were consumed 2,345,485 gallons—nearly 4-5ths of the whole importation.

Of the *Teas*, 1,562,849 lbs. were *Souchong*, and all the rest green teas, excepting a very small quantity (18,000 lbs.) of Bohea.

Of the *Sugar*, only 2,814,502 lbs. were white clayed; the rest were all brown.

Among other articles subject to specific duties we observe that of

Cotton Bagging there were imported, 4,376,701 yards.

Coals, about 30,000 chaldrons.

The foreign trade of the country in 1827, employed of American tonnage 900,199

employed of American tonnage	900,199
Foreign do.	151,875
Total,	1,052,074

Making the proportion of foreign tonnage to the whole of that employed in our foreign trade, as 14.4 to 100.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 2, 1828.

☞RAIL-ROAD BRIDGE, OR VIADUCT.—A bridge of this description has lately been invented by Col. Long, of the United States' engineers, in the service of the Baltimore and Ohio Rail-road Company; and we have seen a model, constructed under his direction, by Mr. Mulakin, an ingenious mechanic of this city, in the employ of Messrs. Curley & Hassard.

The model is on the scale of 1 inch to the foot. Its length or span is six feet, and its width two. The quantity of timber (white pine,) employed in its construction, is 2300 cubic inches, or 16 feet board measure, exclusive of abutments. It contains 69 screw-bolts, 14 inches long and 1-8 inch in diameter, and weighs, exclusive of its abutments, 36 pounds. The connection of its parts is effected by means of lock joinings, without the intervention of a single mortice or tenon. It will sustain, midway of its span, 3000 pounds weight.

The quantity of timber required for a bridge 72 feet long and 25 feet wide, built in conformity to the model, is less than 30,000 feet board measure, or 250 cubic feet; and the quantity of iron, 69 screw-bolts, 15 inches long and ⅜ inch in diameter, or about 240 pounds, besides nails and spikes.

The model is to be seen at the office of the Baltimore and Ohio Rail-road Company.

The inventor intends to apply for a patent to secure his rights in this invention. The model in question is constructed, we believe, according to a new combination of known principles, and is the result of philosophical investigation and experiments by Col. Long, in the course of which discoveries have been made, which bid fair to prove of great value, not only to the Rail-road Company, in the numerous structures of that kind which they will have to erect, but of a nature which will admit of universal application, and come into general use for bridges of small as well as of the largest class. We cannot, consistently with what is due to extraordinary merit, allow the occasion to pass without expressing the sense we entertain of the great obligation conferred by the government, in yielding to their use the services of an officer so talented and efficient as Col. Long. In the commencement of a great enterprize like that in which they are engaged, it was of the utmost importance to have the aid of men of mathematical minds, capable, by true philosophical calculations, to secure the most power with the greatest economy in all the operations of the company, from the largest to the most inconsiderable. It is not new to remark of men of that character, that they are the last to appear sensible of their rare value to the community.

SHEPHERD'S DOGS—FROM GENERAL LAFAYETTE.

Extract to the Editor of the American Farmer, dated

MY DEAR SIR, LA GRANGE, August 9, 1828.

The session of the Chambre du Deputés is at an end, and I am returned to La Grange, where I hope soon to reunite the greatest part of the family, including our three boys for the time of the vacation.

You will have received a letter, inclosing one from my colleague, M. Girod de l'Ain, Judge of the Roial Court of Paris, and a member of the association of Naz, the celebrated flock for the fineness of merino wool. I believe it will have attracted your attention. The enclosed small book has been lately published; as the southern parts of the United States are well calculated for the cultivation of the silk worm, and the middle states also, I think the information therein contained may be of some use in the American Farmer. You have mentioned to me the Pyrennean breed of dogs; I have procured two puppies, one of them, as both are males, I shall send when more fit to bear the voyage."

[The puppies arrived safely, and are of immense size; one remains in Maryland, and one is for Mr. Dickinson, of Steubenville, Ohio. They are of the breed which is used to destroy wolves and sheep-killing dogs. The treatise is entitled, "Manual pour l'Education DES VERS A SOIE, et la CULTURE DU MURIER, par J. M. REDARES, du Gard. If on examination it should be found to contain information that may appear new and useful, in addition to what we have published, and shall publish in our next, we shall insert it as soon as convenient.]

☞The management and working of the race-horse and the hunter, will be found under the Sporting Olio for this and the next number.

The reader can judge how far the directions as to the treatment of the race-horse conforms to the best practice in this country. For ourselves, we would rather have a leaf from the book of W. R. Johnson, Esq., or rather the use of his judgment, than all the directions in all the English books. Mr. Johnson says, that the treatment depends on circumstances so various, having application to each case; such as the temper, constitution, &c. of the horse; that each case must be regulated by peculiarities that belong to it; and as for the directions to the rider, much must depend on your knowledge of the adverse horses. No man, in our opinion, need make money faster than he could do on the English turf, with his skill and the horses he could select from North Carolina, Virginia, and Tennessee, against royal dukes and noblemen, and the best blood of England, both of man and horse. When have we heard of an English three year old filly winning the four mile heats, running them in less than eight minutes, after having won the second day's purse?

☞TOBACCCO.—Fifty hogsheads, growth of Calvert county, sold this week for $5 50—and fifteen from the farm of Daniel Kent, Esq for $7.50.

☞By late arrivals from Rio Janeiro, it appears that that market is exceedingly dull for U. S. wheat and flour, with which the market is overstocked. The peace with Buenos Ayres has, to the disappointment of commercial men, not had a favourable effect on either commerce or the currency of the country. The duties on imports have by a late law been equalized; so that importations from the U. S. formerly paying 24 per cent. are now subject to only 15 per cent.

It would seem from the following article, the substance of which is confirmed by an arrival at New Haven from St. Barts, that the U. S. ship Erie, Capt. Turner, which sailed from here about the middle of November, having on board the United States' Minister to Colombia, Gen. Harrison, had taken possession by force, of a privateer of Buenos Ayres, lying in the harbour of a foreign friendly power; and that, too, after demand made and refused, that the authorities of the island of St. Barts would surrender the privateer as a pirate.

FROM ST. BARTS.—We learn from Capt. Masters, of the Marshall, arrived yesterday from St. Barts, that a British brig of war chased the "*piratical*" schooner Federal, Capt. Warner, into that harbour on the 4th inst. and demanded her of the government, who refused to give her up. The American Consul at that port also demanded the schooner, she having been detected in plundering several American vessels. His demand also being refused, the U. S. sloop of war Erie, Turner, then lying in the port, slipped her cables on the night of the 6th inst., cut the schooner from her moorings, put on board a prize crew, and ordered her for New York. The first Lieutenant, Sailing Master, and a great part of the crew escaped to the shore. It was understood that the Captain was taken prisoner.—When two days out, Capt. M. saw off St. Martins, the U. S. ship Erie. [*N. Y. pa.*

INTERESTING FROM SOUTH AMERICA.

By the brig Sarah, from Rio Grande, we learn that a revolution broke out in the Province of Misiones, headed by Gen. Revardo, who had taken possession of the province. He was received with open arms by the inhabitants. He had issued a Proclamation to the inhabitants of the Province of Rio Grande, promising that should they lay down their arms, their personal property would be respected. Col. McGregor, of the Brazilian army, had marched with three battalions to attack Revardo; but it was generally believed that the latter would retain the place. [*N. Y. Statesman.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents,

TOBACCO.--Maryland, Scrubs, ground leafs, $5.00 *a* 10.00—seconds, common 3.50 *a* 4.50—ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 4.00 *a* 6.00—good red, 6.00 *a* 8.00 yellow, 8.00 *a* 12.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.00 *a* 4.00—wrapping, 4.00 *a* 6.00.

FLOUR—white wheat family, $9.50 *a* 10.00—superfine Howard-st. 8.00 *a* 8.25; city mills, 7.75 *a* 8.00; Susquehanna, 8.00—CORN MEAL, per bbl. 2.75—GRAIN, best red wheat, 1.65 *a* 1.70—best white wheat, 1.70 *a* 1.75—ordinery to good, 1.40 *a* 1.56—CORN, old, .48—new corn, .46 *a* .48—in ear, per bbl. 2.25—RYE, bush. .50 *a* .55—OATS, per bush. .26—BEANS 1.25—PEAS .55 *a* .60—CLOVER SEED, 4.75 *a* 5.00—TIMOTHY, 1.50 *a* 1.75—ORCHARD GRASS 1.50 *a* 1.75—Herd's grass 1.50—Lucerne 37½ *a* .50 lb.—BARLEY, .55 *a* 60—FLAXSEED, 1.00—COTTON, Virginia, .10 *a* .11—Lou. .13—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—WHISKEY, hhds. 1st pf. .24 *a* 24½—bls. .26 *a* .27—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef. 3.50 *a* 5.00.

MARKETING—Apples, per bush. .50 *a* .75; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .25; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, per dozen, 2.00 *a* 2.25; Ducks, per doz. 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, 1.00, Pork, 4.00 *a* 4.50 per cwt.; prime Beef, 5.50 *a* 6.00.

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AGRICULTURE.

SILK.

Ir. Skinner, *Baltimore, Jan. 1829.*

I do not know how I can serve the cause of the lk culture more effectually, than by suggesting the ublication in the Farmer of the accompanying etter from Dr. Millington, of Missouri. It is, in ny opinion, the very best article yet published on his interesting subject. My experience bears tesimony to the correctness of all Dr. Millington's emarks, and enables me to say with confidence, hat our farmers may safely take the article as their guide in the management of silk worms. Dr. Milington is a practical scientific agriculturist, and has nade silk one of the principal objects of his attenion for several years, and may therefore be deended on with more confidence than one merely ersed in the theory of his subject.

Yours, respectfully,

GIDEON B. SMITH.

—

Dear Sir, *St. Charles, July 4, 1828.*

I have had the pleasure to receive your recent etter, and will answer the queries it contains. I embrace the first leisure hour I have had since I received it, which happens to be the day on which we celebrate our independence. While others are rejoicing for the independence already gained, I will with greater pleasure attempt to aid you in your endeavour to show, that we ought to be, and can easily become more independent, by throwing off our dependence on other countries for silk and silken goods. Before I commence my answers, I will inform you that my silk raising has been mostly experimental. I commenced these experiments, to ascertain whether there was a probability that the silk raising business would be sufficiently profitable to justify going to the expense of making a large mulberry orchard; and since I was convinced it would, I have continued these experiments for the better understanding of the business. I have raised one crop of silk worms, all hatched within three days, which made two hundred and thirty-one pounds of cocoons; and another crop which made seventy-three pounds. My other crops have been smaller. You will therefore understand some of my answers to your queries, as more properly stating what I have done, and am doing, *by way of experiment, and as what I intended to do on a larger scale, for profit,* as soon as my young mulberry trees will furnish a sufficiency of food.

Query first. How do you hatch your eggs, and manage your worms?

Answer. I hatch them without artificial heat.—When the eggs are kept in a room where no fire is used, they will seldom hatch before the mulberry trees will furnish food. But I generally keep them in a cool place, until near the time I shall want young worms, when the eggs are placed in the feeding room, where they hatch within from five to ten days. The eggs are kept on the sheets of paper as they are laid by the moths. When the eggs begin to hatch, the sheets of paper are spread on tables or shelves, and young tender mulberry leaves are placed near the hatching worms. The worms attach themselves to these leaves as fast as they come out, and are carefully removed every evening to the feeding shelves. *I keep each day's hatching by itself, and never, at any stage of their existence, mix together on the same shelf worms of different ages.*

Q. 2. Do you feed on the wild black mulberry, or on the Italian white, or both?

A. I have fed my worms principally on our indigenous red mulberry, (a variety very common here, which bears black fruit,) but not so much by choice as out of necessity. I have but few white mulberry trees old enough to furnish food for silk worms; yet these few trees have enabled me to try several experiments, to ascertain which is most valuable. The result of these experiments has convinced me, that although the leaves of the white mulberry may not make the worms grow larger, they will fill their silk vessels fuller with the silk material, than our wild kind. This is shown by the fact, that worms fed on the white mulberry, shrink less before they begin to spin; and they spin larger cocoons, composed of a coarser and stronger fibre, with less gum than those worms which are fed on the wild mulberry. The silk made from our wild mulberry has often been admired for the fineness of its fibre; but this fineness, with the gum attached to it, certainly renders it more difficult to reel, and, in my opinion, does not add to its value after it is reeled. I only mean to be understood to say, that I consider that there is an inconsiderable difference between the two kinds, and the white is entitled to the preference.

Q. 3. On what sized trees, and in what age, and state of the foliage, do you gather for your worms?

A. While the worms are young, I feed with the most tender leaves. These may be found most plentifully on young trees. They, however, may be procured from the fresh growing shoots of old trees. As the worms increase in age, I give them older leaves, or rather old and young gathered promiscuously, until after their last cast, when I aim to feed them wholly, if they can be conveniently procured, with full grown leaves, taken from trees of some age. As it regards the trees, after they are three years old, they may be moderately picked without injury. Very close picking, and that frequently repeated, will check their growth; but when the growth of the tree is not an object, this may be repeated several times, during the same summer, and a new foliage will immediately succeed the loss of the old.

Q. 4. How do you manage your worms while in a state of feeding.

A. I keep the worms on shelves, or on light frames, three and a half feet square, filled with basket splits, and then covered with some kind of strong paper. These are put up in form of shelves. I aim to give the worms at all times as much food as they will eat, and never give it in less than three meals, often in six or eight meals a day. I have the litter removed from them at least often enough to prevent its becoming mouldy or offensive. When the weather is warm, they have a free circulation of air.

I have sometimes set them to spinning on hedges, erected according to the French and Italian mode; but have found it more convenient to use oak bushes, having large leaves, and which should be cut three or four weeks before wanted, that the leaves may become dry and curled.

Q. 5. Is it known that the silk worm will feed on any thing beside the mulberry, so as to make cocoons?

A. It is said the silk worm will feed on the dandelion. I know it will feed on lettuce, when it cannot get better food. The knowledge of this fact is often useful to silk raisers. When mulberry leaves fail, by frost or otherwise, lettuce may be fed to young worms until mulberry leaves can be procured. Probably, there is no valuable substitute for the mulberry leaf, which is not much to be regretted, as few trees are more easily raised, and furnish leaves sooner, and more abundantly, than the mulberry.

Q. 6. What process do you follow, in preparing the cocoons, and in preparing the eggs for the coming year, and how often do you hatch feeding worms in the same year?

A. Such part of my cocoons as cannot be reeled immediately, and are not wanted for seed, I prepare for keeping, by exposing them repeatedly to the heat of the mid-day sun. This will certainly kill the chrysalis, contained within the cocoon.—But if cloudy weather prevents the use of these means, up to near the time the moths are expected out, I either steam or bake them in the manner commonly recommended in the several treatises on silk raising. But I prefer the sun. It leaves the cocoons better and handsomer. My method is to expose them to the sun, thinly spread on planks, sheets, or blankets. If the cocoons are to be kept a long time, I continue frequently to expose them to the sun, to dry the dead insect contained within them. Those cocoons selected for seed, are kept where most convenient, until the moths begin to come from them. I put the moths on sheets of paper, which are spread in boxes on shelves, the floor, or where most convenient, on which they lay their eggs. On each sheet of paper containing eggs, I write the day and month they were laid, then roll them loosely together, and keep them either in a cool room or cellar until wanted the next season. A cool cellar will seldom keep the eggs from hatching later than until about the first of June the following year. Such eggs as I wish to keep later, I remove early in the spring into a dry and cool place in an ice house. I cannot say certainly, how often I should wish to have fresh crops of worms hatched, were I doing business more extensively, but probably every six or eight days through the summer. Last year I had silk worms constantly in feeding from the 20th of April until after the 20th of October.

There are considerable advantages in having the worms of several different ages in the same establishment. One advantage is, the same room and shelves will hold abundantly more worms at the same time, without being crowded. A room and shelves which will barely accommodate one hundred thousand full grown worms, will better accommodate two hundred and fifty thousand, consisting of four or five different ages, provided each age or parcel are about equal in number, and are hatched at about seven or eight days apart. Another advantage is, the same number of hands, with the same quantity of labour, will make more silk, and do it with less trouble and perplexity, than when the whole crop of worms are of the same age and all spin at the same time. When silk worms are young, they are extremely small, and they require but little room, little food, and little attention. All the food they consume, up to the time they are sixteen days old, would not make more than one meal for them when full grown: consequently, when the whole crop of worms are of the same age, there is at first but little to do; but for a few of the last days they will eat voraciously, must all be removed and cleaned frequently, and all set to spinning at the same time. So much to do at the same time, creates a hurry and perplexity which must frequently eventuate in a loss for the want of time to do all that is required. Such was my experience last year in a crop of worms, all of the same age, which made two hundred and thirty-nine pounds of cocoons. They would have made more, had they been better attended for a few of the last days.—When the worms are of different ages, the labour required is more equalized. A part of them will constantly be of the age to require considerable attention. But this parcel will be so small, the hands will have spare time to attend to the younger parcels. I would not be understood, that I *keep worms of all ages, and spinning worms too, on the same shelf.* I have certain shelves allotted to each parcel, during a certain age; and others exclusively for them to spin on. I begin with fresh hatched worms, placed on the shelves allotted to worms of that age. After their first cast, I pass them to the shelf allotted to the next age, and again supply the first shelf with fresh hatched worms. In this manner I continue, through the whole season, to bring young worms on to the first shelves, and pass them on, until they reach the spinning shelves, from which the cocoons are removed, to make room for the next succeeding parcel. I believe this mode of raising silk is somewhat new, and may not be approved of by those who think we should strictly follow the plans laid down by the French and Italian writers. Probably, this is not the best mode in Italy and France. But I am sure it will succeed well in this section of the world. In 1826, I raised three crops of worms, and there was about one month between each crop, which made the last crop late. In 1827, I had worms in feeding from the 20th of April until frost came late in October; *all which were healthy*, and made good cocoons, not materially affected by the difference in the temperature of the air, or time of the season in which they were made. Then, why not continue to feed the silk worms through the summer, and constantly have them of several ages? It has been supposed it will be attended with more trouble than the common method. But this is certainly a mistake. Again, it has been supposed that the spinning worms may be disturbed by the eating worms, while spinning their cocoons. But as my plan, rightly understood, *is to have certain shelves exclusively allotted to the spinning worms*, this must also be a mistake.—See the Secretary's Manual on the growth and manufacture of silk, p. 117.

It has also been remarked, that silk worms are affected by change of climate; that when removed to a warmer or colder climate, they will not do so well until after three or four generations; and that the eggs from worms which have been raised for many generations in the cool spring months, will not make worms suitable for our dry, hot summer months. Possibly there may be some truth in these remarks. My experiments, as yet, give little light on the subject. But even admitting that silk worms are thus affected by change of climate, yet my plan obviates the apprehended evil. It will be observed above, that I write on each sheet of paper containing the eggs the time in which the eggs were laid. This shows me the time the parent insect existed, and enables me to bring their offspring into existence at the same time the following year.—This plan, followed a few years, will produce several varieties of silk worms, some one of which will be suitable for each month during the summer. I have raised many worms which hatched out the same season the eggs were laid. But this hatching is generally only partial, and cannot be depended on for succeeding crops, unless by continuing to breed from those which show the greatest disposition to hatch, we can produce a variety of the silk worm which will more readily hatch repeatedly during the same season. This I am trying to effect. My remarks on the raising of several crops of silk the same season, are more extended, because I believe it is the mode best adapted to these western states. Here, rich uncultivated lands are cheap and abundant, and can easily be covered with the white mulberry. Our summers are uniformly warm, and vegetation, the leaves of the mulberry in particular, puts forth luxuriantly for more than five months in the year. We therefore can easily provide for a plentiful supply of food for the whole summer season, and will then certainly find it our interest to realize the profits of several years in one summer.

Q. 7. What is the lustre of your silk, comparing that of the wild with the Italian mulberry, and both with English and French silk.

A. I am confident that the American silk, from either kind of mulberry, is not deficient in lustre, while in its natural state; but is greatly deprived of its lustre by the process used to remove the gum and colouring matter attached to it. Were it an object, the lustre might be retained.

Q. 8. How do you wind it? Do you dye it in the domestic way?

A. We wind or reel our silk in the manner directed in the several treatises lately published on silk raising. We have a reel made after a plan found in an old French Encyclopædia. It takes two threads at a time, and has a traversing bar to spread the threads equally on the reel. Our dyeing is somewhat in the domestic way, and not worth detailing.

The above answers to your queries, I am sorry to say, are given in too much haste. At a period of more leisure, I might have gone more into detail, and perhaps have made my answers more acceptable. But the facts would be the same as now given, and I preferred giving them in this hasty manner, to delaying the answer to your letter.

I am, very respectfully, &c.
SETH MILLINGTON.

Rev. Timothy Flint.

SUGAR CANE.

[We have been favoured by a friend with copies of letters addressed by the Hon. Jos. M. White, the vigilant representative of the interests of Florida in Congress, to the Secretaries of the State and Navy Departments. It would, doubtless, serve the end in view, if some of the commercial papers would copy them; as they would, in that case, more assuredly fall under the eye of masters of merchant ships.]

SIR, *House of Representatives, Dec.* 1828.

The instructions heretofore given to our naval officers abroad touching the collection of useful seeds and plants, will no doubt be attended with the happiest effects upon our national agriculture.

Great credit is due to them for their zeal and industry in the execution of these orders; and the eagerness with which our farmers and planters avail themselves of the liberality of the government in distributing the germs of rich or useful products thus obtained, is a sure indication of the enterprise, activity and intelligence of that valuable class of citizens.

Permit me, in connection with this subject, to call your attention to, and solicit your good offices in favour of a new source of agricultural riches, which is rapidly rising into consequence.

The success which has thus far attended the cultivation of the sugar cane in Louisiana, Florida, Georgia, Mississippi and Alabama, cannot have escaped your notice. Its great and growing importance as a staple of southern agriculture, and the strong probability there is that individual skill and enterprise, judiciously aided and encouraged by government, will, at no distant period, not only supply our own consumption, but enable us to become exporters of sugar, entitle it to the favour and assistance of your department.

Heretofore there have been but few varieties of sugar cane cultivated in this country, and those principally introduced from low latitudes. There is reason to believe that advantages would be derived from naturalizing others to be brought from regions between 20 and 35°, and therefore already partially acclimated. No doubt can be entertained that plants, as well as animals, gradually adapt themselves to changes of temperature, but with the vegetable world the process is a slow one; and in every successive effort we should avail ourselves of whatever vantage ground may have been previously gained.

Cane was formerly, and perhaps still is, cultivated in Sicily, Rhodes, and Cyprus. It grows in Egypt, at the Cape of Good Hope, in Spain, at the Canaries, and in various places in Asia, Africa, America, and perhaps Europe, whence it might be introduced into the United States, with the fairest prospect of increasing the productions of our soil, adding to the national wealth, and multiplying the comforts of our citizens.

Cane for seed, may be preserved a long time, without losing its power of vegetating, if it be kept dry and the eyes or buds are uninjured. It should, as speedily as possible after its arrival in the United States, be dispatched to some of the southern ports for distribution: New Orleans, Pensacola, St. Marks, St. Augustine, St. Mary's, Savannah and Charleston, would be the most proper. The revenue cutters under the direction of the Treasury department, might, no doubt, without injury to the public service, assist in disseminating specimens of seed cane at such places as our vessels of war seldom enter. Perhaps our consuls abroad might aid our naval officers in collecting the descriptions of cane best adapted to our climate; and in hopes of obtaining co-operation in both quarters, I shall send a copy of this letter to the State and Treasury departments.

I annex a list of places where varieties of the cane may certainly, or probably be procured; where at least it should be inquired for, and whence it may be brought with more or less facility to the United States. Some of these ports, it is true, are seldom visited by our public ships; but of those thus situated many are frequented by our merchant vessels, and have resident American consuls or commercial agents, who might readily be induced to lend their valuable assistance to this desirable object.

I have the honour to be,
With the highest respect,
Your most humble serv't,
JOS. M. WHITE.

HON. SAM'L L. SOUTHARD,
Secretary of the Navy.

—

Lis of Places where varieties of Cane may certainly or probably be procured.

Algiers; Alexandria; Buenos Ayres; Canaries; Canton; Cyprus; Candia; Calcutta; Cape of Good Hope; Ceuta; Damietta; Gibraltar; Havana; Isle of France; Isle of Bourbon; Japan; Juan Fernandez; Montevideo; Madeira; Mogadore; Malta; New Holland; Rhodes; Rio Janeiro; Samos, Sicily; Suez; Smyrna; Tangiers; Tripoli; Tunis; Valparaiso.

—

SIR, *House of Representatives, Dec.* 1828.

I have the honour to enclose you a copy of my letter to the Hon. the Secretary of the Navy, asking his attention to an object of some interest to the agriculture of our southern country. Allow me to beg your favourable consideration of it also. Permit me further to suggest, that our consuls might render an acceptable public service, by transmitting an account of such improvements in the fabrication of sugar as may have fallen under their observation during their residence abroad: a service which the interest they feel in the prosperity of our common country would, no doubt, induce them readily to render to their fellow citizens.

I am, &c. JOS. M. WHITE.

HON. H. CLAY.

BREAD STUFFS—SUGAR, &c.

"Different birds of different kinds,
Different men of different minds."

MR. SKINNER, *Campbell's Station, T. Dec.* 15, 1828.

Sir,—I perceive by your paper, the Farmer, that there has been a considerable rise in bread stuffs, which I, although a farmer, am sorry to see, believing it will be of very little advantage to the nation; it will cause more goods to be imported, and do some injury to the home manufactures. In Europe many, very many will suffer on account of it. If it would bring us some of their gold in exchange, to enable us to make it the basis of our currency, it might be of some use; but I think it will only be the cause of more calicoes being imported, and articles of that kind, which is a poor exchange for the sufferings it will cause even here. I wish that the barrel of flour may not exceed six dollars; that the pound of cotton may never exceed twelve and one half cents—then will the making of sugar increase, as will the planting of the vine and olive, the raising of sheep, and it may also cause considerable attention to the mulberry and the silk worm: but raise the barrel of flour to from eight to ten dollars, the pound of cotton to fifteen or twenty cents, and the sugar cane, the vine, the mulberry and the silk worm will be measurably forgotten.—Should the exchange with England come to be 2½ to 3 per cent. in our favour, then I should think the nation was gaining by it; but the misery amongst the poor of England will be extreme. We will, of course, gain by the misery of others, but in the end will be sufferers by it; for the culture of the woad, indigo and madder plant, so essential for our manufacturers, will also be neglected by bread stuffs being increased in value. So that, on the whole, only that none, or at least as few as possible might suffer, I wish that England never may buy a barrel of beef or flour from us. Protect the labour of our people here, and you will raise up a better and steadier market for bread stuffs, than that caused by the casual suffering from bad crops in Europe, which happen about once every seven or eight years.

SAMUEL MARTIN.

ON SHIFTING CATTLE.

J. S. Skinner, Esq. *Philadelphia, Nov. 26, 1828.*

Sir,—I do not know that any writer in your paper has remarked on the astonishing effect produced by shifting cattle from lands of poor quality and short feed, to those of fertile soil and rich grasses. My experience is worth something on this point, and I wish to put it on record for the benefit of my countrymen.

In July, 1820, my farm being overstocked with sheep, I sold sixty of the poorest quality, the small, diseased ones, for *one dollar* per head, to a gentleman living about five miles from me. Our land was quite different in its quality. Mine was a thin, worn-out soil, producing nothing but rye; his was high and very rich land, covered with a thick growth of white clover. At the next season of shearing, I took pains to be at his pen. The whole sixty sheep purchased of me had lived through the winter; their produce per head was four pounds of clean washed wool, about three times as great as that of the preceding year; and their weight (but this last was conjecture,) was double to what it was when purchased of me. He has at various times since purchased the refuse of my flock, and his example has been imitated by his neighbours in both cases with the same success. I have old worn-out ewes renovated by this shift from scanty to luxuriant pastures.

The same effects result from shifting the pasture of neat cattle and horses. In 1824, I purchased a pair of little oxen; one was eight years old, and the other his elder by six months. They were adjudged to possess a capacity for weighing when fatted—the one 700 lbs., the other 775 lbs. They were taken into my cow pastures, which, though a thin soil, were considerably better than that they had been reared on, their living having been hitherto very bad, and food meagre. I gave them my customary allowance to working oxen, and used them much in the yoke. They never had an ear of corn, nor root, from the time I purchased them till their death. I kept them two years. In the month of September, there being a scarcity of beef, I gave them some corn blades and pumpkins for six weeks, and they were sold to the butcher. One of them weighed 890, the other 976 lbs. They were not fat; one of them having but 60, the other 78 lbs. of tallow. If those who reside on the rich soils of Pennsylvania will buy, every two years, from the starved herds of New Jersey, they will realize more profit than by any other mode of raising stock.

F. J. R.

Large Cattle and Liberal Premiums.

John L. Boylston, Esq. of Princeton, Mass. exhibited at the last cattle show at Brighton, cattle of the following description, among others:

One pair of two years old steers, of the Holderness breed, which weighed	2254 lbs.
One bull, only 14 months old, which obtained the first premium in 1826, weighed	1014 lbs.

The amount of premiums which have been awarded to the above named gentleman this year, for his fine stock exhibited at Worcester and Brighton, including his premium for butter, is $174.20.

[*N. E. Farmer.*

HORTICULTURE.

FRUIT—N. CAROLINA RESOURCES, &c.

J. S. Skinner, Esq. *Raleigh, N. C., Jan. 1, 1829.*

Sir,—The speculations of others, which, through your favour, sometimes find a place in the useful columns of your widely circulating journal, emboldens me to offer the following suggestions on fruit trees in this climate, in the hope that if you think proper, you will place them before your readers.

From the year 1786 to the present date, I have been an importer of fruit trees, chiefly from the extensive, and, I might almost add, *in point of utility,* public or national garden of the Messrs. Princes, of Flushing, Long Island.

The first fruits I imported were the apple, pear, peach, cherry, and plum, all these, too, of the best kinds, and such as were highly spoken of in the catalogue then circulated. They have been planted for these many years on the south side of a north garden paling, of the common kind, viz: made out of saw-mill stuff. To be laconic—they have not done well, and seem to suffer from the climate.—They were placed in a walk, because such fruit trees as were so situated, as plums, cherries, &c. had been observed *to do best.* Some apricots which came on with the other trees, (and which I omitted to mention,) turned out better than any of the others; and sometimes, when the spring was favourable, (which is about *once* in every two or three years,) we have gathered some pretty fair fruit.—The other trees have been *soaped,* and the grass and turf kept clean from around them, and all those other matters deemed essential—but it won't all *do.*

This section of North Carolina in which I reside, and which is computed to be somewhat central, abounds in good fruit, *particularly* in excellent peaches; in fact, North Carolina would seem to be almost the native country of the peach, for notwithstanding the rudest culture, they flourish and produce finely.' Some of our planters and farmers have not "orchards," but small plantations of this kind of fruit trees; and where one goes upon *one kind of fruit* altogether, I do not know of a happier selection that could be made than the peach. Its juices, distilled, make an excellent brandy—and one which, in some degree, has *peculiar* qualities.

Some of the upper counties of North Carolina have almost as good fruit as any part of the northern states. I mention this *fact,* because I do not believe *it is known.* In fact, the resources of the state, as yet, are in *no wise* properly developed; and those that are, are not extensively enough known; should they ever be, she will take an important political, fiscal, scientific, and numerical stand. I am happy to mention just now, that an enterprising company of the town of Newbern, have purchased a "small and suitable steam boat," for plying on the river Neuse, from that place through the "Clubfoot and Harlowe's creek Canal" to the town of Beaufort. Beaufort is a beautiful site, remarkably healthy, admitting vessels of any burthen. In this case, it must speedily attain an importance at *least equal* to that of Charleston, and Newbern will be the deposite town for it. It is contemplated to make a rail road from the *capital, Raleigh, to the latter place.*

I design sending you shortly some fine fruit of a kind which originated in this state, called the "Old-field apple," because they were propagated from a tree found in a deserted old field, and which was probably from the seed.

A North Carolina Subscriber.

SILK WORMS.

Mr. Skinner, *Campbell's Station, T. Dec. 15, 1828.*

Sir,—It appears to me that by introducing the planting of some mulberry trees and raising some silk worms at all schools or academies where young ladies are educated, would be the best means of introducing the raising of the silk worm and making silk that can be thought of. I hope some of your female correspondents will make some remarks on it through the medium of the American Farmer.

SAMUEL MARTIN.

ON THE USE OF SAND

In propagating Trees, Shrubs, and Plants, from cuttings of them. By Mr. Thomas Haines, *of Oundle, Northamptonshire.*

"The *finest white sand is superlatively useful to autumnal planted cuttings of the more tender evergreens and shrubs.* In the business of planting cuttings of these underhand-glasses, in the autumn, as well as the more hardy green-house plants, such as myrtles, faschia, roses, cistuses, germander, &c., no unmixed soil whatever can be found to bear a comparison with the *finest white sand;* as cuttings planted therein will be far more secure from mouldiness throughout the autumnal and winter seasons; during which times, the pots in which they are planted, generally remain standing up to their rims in the common ground, as the greatest preservative from frost; but in which situation they are more exposed to the ill effects of damp, than if standing on the surface.

"Although but little more than a knot, or a swelling protuberance, at the foot of each cutting, can be effected, during the first autumn; yet, on the advance of spring, they will early make roots, even without the addition of any other soil or article to promote their growth; and which young plants, being potted off, or transplanted in some way, as soon as they have formed sufficient roots; immense *quantities, from these small cuttings, may be thus annually propagated,* by the help of the full sized single hand-glasses! This process, however, will not extend to any other description of plants than the evergreens.

"In the propagation of the trees and shrubs alluded to by this process, it must be recollected, that the sand is to be considered as no farther essential, than to strike or promote growth in the cuttings, sufficient for transplantation; as, on their being removed into another situation, in the next stage of the process, a mixture of suitable soil, with a proportion of sand only, will be requisite.

"We are not asserting that *yellow sand* will not equally apply in both cases, of planting cuttings of hardy evergreen trees and shrubs, both by summer-planting, in the open exposure, and autumn planting, under hand-glasses; but in all the experiments we have witnessed, and throughout the whole of our own practice, *white sand,* where it could be obtained, has been invariably applied, and most successfully.

"When we reflect, that *mouldiness* is the chief annoyance to cuttings of almost every description when planted under hand-glasses; every propagator should strenuously guard against it: and we know of nothing *so likely to discharge wet, and prevent undue retention of moisture, as sand alone;* and this, in preference to every other soil and compost.

"There are few soils with which sand cannot be intermingled to the greatest advantage in the various other branches of horticulture, as well as in the propagation of plants and flowers; it being admirably adapted, from its loose and open nature, to expand the pores of heavier, more close, and adhesive soils, thereby opening the entire mass of compost, and rendering it porous, and open to the free admission and full expansion of the delicately fine, and thread-like roots of plants and flowers; and in which we have most satisfactorily witnessed its singular and superior efficacy! We have known in various cases, plants to have been placed in soils most opposite and ungenial to their natures and constitutions, and thereby early inclining to decay; but which were speedily restored to their original vigor and complexion, by a proper and timely application of white sand.

"The sand which has invariably been found to surpass all others for general and special purposes in horticulture, is *a peculiarly soft and fine white sand, of an unusual smoothness, nearly as fine as flour-emery.*

"Where none other than the common white sand, which is unusually coarse, can be obtained, small quantities of the most fine can be sifted out with a fine sieve. [Or still better procured from it by a little washing over.—*Ed. Tech. Rep.*]

"Little argument can be necessary to convince the unprejudiced florist, gardener, or amateur, of the general utility of suitable sands being mixed with the more cold and heavier soils; thereby rendering them open and porous to discharge all copious falls of rain, dissolving snow, &c., and which tend to overcharge adhesive soils with an undue proportion of moisture, and thereby to chill and starve the stock of plants and flowers." [*Tech. Rep.*

REMARKABLE FECUNDITY.—Mr. Henry Hathorn, of Middlebury, Vt. raised last season from one stock of the common field bean, 915 beans.

RURAL ECONOMY.

COTTON SPINNERS.

MR. SKINNER, *Greensborough, N. C., Dec.* 20, 1828.

Sir,—I notice in several papers, information desired on the subject of domestic cotton spinners. There is a company of young mechanics here, who are making simple machines of that description.—They are agents, or have purchased the right of making, from William Briant, who is the patentee. We have been so often bit by yankees, or others who are mere impostors, with patent mills, washing machines, art of tanning, catholicons, specifics, &c. &c., that we, like the burnt child, approach and touch any thing called patent, with great caution, and must see them successfully tried, before we venture to purchase. These machines pick, card and spin the cotton to the common sized threads, all of which is accomplished by turning a crank; and one of six spindles, which costs $125 or $120, will with great ease spin, attended by one common hand, from twenty to thirty cuts* a day. They have only made and put in operation in this county two or three. The owners are much pleased with them; and they seem fully to come up to the description. A part of the company have established a shop in Raleigh, N. C. Briant lives near Nashville, Tennessee; obtained his patent the 30th of September, 1823.

J. A. M.

[* *Quere*—How much is a *cut?* It is always better to employ terms in general use and universally understood—pounds and ounces.—ED.]

(From Poulson's American Daily Advertiser.)

FLAX.

The following communication from F. Roumage, was laid before the Philadelphia Society for Promoting Agriculture, at the last meeting, and directed to be published, that those who may feel inclined to engage with him upon the terms he proposes, may be made acquainted with them. It is well known that F. Roumage has successfully prepared flax during the last three years, in New York and New Jersey, for spinning, without either dew or water rotting. His present establishment is at Elizabethtown, New Jersey, to which place letters may be addressed to him, or at No. 33, Greenwich street, New York. His object is to increase his funds, that he may introduce the machinery into this state.

By order, WM. S. WARDER,
Sec'ry Phila. Soc. for Prom. Agric.
Philadelphia, 12 mo. (Dec.) 26, 1828.

STATEMENT.

An establishment, working with three machines, will dress, in one year, the produce of 800 tons flax, in its raw state, as delivered by the farmers when the seed is only threshed off.

800 tons flax, in its raw state, in sheaves, will cost, at $10, . . .	$8,000 00
The labour, hackling, rent of the mills, repairing, insurance, interest of the capital, at 7 per cent. and every possible expense, calculated on the largest footing, as experienced in my factory,	11,000 00
Total expense, . . .	19,000 00
800 tons produce, is 700 lbs. *at least*, per ton, 560,000 lbs. flax ready hackled for rope-makers, which has not, and cannot have, any competition in the market, for its cheapness and strength, and sells daily at 7, 7½ and 8 cents per pound, it makes, at 7 cents only,	$39,200 00
N. B.—80 to 90,000 lbs. tow, which sells very well at 2 cents per lb. are also produced by these 800 tons; but we will neglect this small object and some other little profits.	
The whole expenses, for manufacturing these 560,000 lbs. flax, being, as above stated, ...	19,000 00
The *nett profits* will be, at 7 cents only per pound, more than the whole capital required, ...	20,000 00

N. B.—The flax dressed by this new process, is suitable for every kind of *bale, white* or tarred ropes, and after another very plain preparation, may be spun and worked into many articles. The States of the South use every year, more than five millions pounds bale ropes, and a long experience has proved that *no other matter* can bear the comparison for this purpose.

FUND WANTED.

In February, March and April—For building the Factory and Store Houses, for Machinery, Tools of every description, &c., about	$12,000 00
In July, August and September—For a sufficient supply of raw Flax, and one half of the dressed flax in the stores,	13,000 00
	$25,000 00

Three or four thousand dollars less will be wanted, *if an establishment well situated*, could be found.

Every other explanation to be given when required, but *the secret to be kept by me alone.* This capital to be raised on terms to be agreed between the parties, with an interest of 7 per cent. and a *premium of* —— on the profits.

INTERNAL IMPROVEMENT.

(From the Albany Argus.)

DELAWARE AND HUDSON CANAL.

The public seem scarcely aware that a canal, ONE HUNDRED AND SIX MILES IN LENGTH, commencing at the tide water near Kingston, and terminating at Honesdale, in Pennsylvania, has been completed since July, 1825; and that this great work has been accomplished principally by the enterprise and perseverance of an individual company. As the channel for conveying coal to the navigable waters of the Hudson, this canal must be regarded as an improvement of incalculable importance to the public: if not of indispensable necessity in supplying the exhaustion of fuel occasioned by the great increase of steam engines.

The first squadron of boats with coal, arrived at tide water on the 5th instant. Fifty tons of this coal have been consigned to the Messrs. Townsends, which will afford our citizens an opportunity of testing its quality.

From gentlemen who have recently been through on the whole line of the canal, we learn that the work has been executed in the most permanent manner, and that in its construction, durability and economy, are judiciously combined. This canal is 32 to 36 feet wide upon the water line, and has four feet depth of water. The locks are 76 feet in length between the gates, and nine feet wide. The boats are estimated to carry 25 to 30 tons.

From the mouth of the Rondout, where it connects with the Hudson, to Port Jervis, near the Delaware river, is a distance of 59 miles; on this section are 60 lift locks and one guard lock, of hammered stone, laid chiefly in hydraulic cement. There are also one aqueduct over the Neversink river 224 feet in length, upon stone piers and abutments; one over the Rondout entirely of stone, upon two arches, one of 60 and the other of 50 feet chord; and ten others, of various dimensions, upon stone piers and abutments, over lateral streams; 15 culverts of stone, and 93 bridges, having stone abutments and wing walls.

Port Jervis is less than a mile from Carpenter's point, formed by a junction of the Neversink and Delaware rivers, and at which point, the states of New York and New Jersey, corner upon Pennsylvania. Port Jervis affords a view of the territory of three states, and also of the Delaware river and the fertile valley of the Neversink.

From this point, the line of the canal is carried along on the east side of the Delaware, to a point opposite the mouth of the Lackawaxen river. At this place a dam has been erected across the Delaware, by means of which the canal is fed, and boats cross the river. From McCarty's point, which is formed by the junction of the Lackawaxen with the Delaware, the canal follows up the valley of the Lackawaxen, 25 miles, to the forks of the Dyberry, at which point the canal terminates, and where a thriving village is already established, called Honesdale.

On the Delaware section of 22 miles, there are 18 wooden locks, and on the Lackawaxen section of 25 miles, are 37 locks of the same description. These locks are secured by a substantial dry stone wall, and so constructed that the wooden lining can be taken out and replaced, without disturbing the rest of the lock.

Honesdale, where the canal terminates, is 16 miles distant from the coal region. Over this 16 miles, the coal is to be transported upon a rail road, which is already in great forwardness. The structure of the rail-road is of timber, with iron plates securely fastened to the timber rails with screws. The plates are estimated to weigh nearly 360 tons. The railway is to be furnished with five stationary and five locomotive steam engines. It is estimated the this rail road and its appendages will transport 510 tons per day in one direction. The steam engines for the rail road were taken up as soon as the canal was navigable; and it is expected the rail road will be in operation as early as June next.

The rail road terminates at Carbondale, on the Lackawana river, where several hundred tons of coal have already been quarried, and transported to the canal by the teams employed in conveying materials for the rail road.

The coal of the Lackawana has been tested, and proved to be of the best quality for working iron, as well as for the ordinary purposes of fuel. As to quantity, there can be no reasonable doubt on the subject. A visit to Carbondale, and the coal region in its vicinity will satisfy any person that the supply is inexhaustible. And the canal being now completed, and the rail road nearly finished, our citizens in the cities and villages bordering upon the Hudson may congratulate themselves upon the facilities offered by this great highway for obtaining an inexhaustible supply of fuel.

DISTRIBUTIVE POPULATION OF THE UNITED STATES.

Mr. Skinner, *Sandy Spring, Dec. 24, 1828.*

In my communication to the Farmer, published in No. 37, vol. 10, page 292, I gave a tabular view of the distributive population of the United States. There is no sophistry can stand against figures. As far as the data are correct, mathematical reasoning is conclusive; and that reasoning shews us that density of population, including all classes or *castes*, decreases from the north-east to the south west, in the United States.

In my paper alluded to, the political subdivisions of the United States, are classed into four sections, the northern, middle, south-eastern and north-western sections. Following a similar arrangement, and rejecting the coloured, we shall now see the distributive population of the whites, by the census of 1820.

No. 1. Northern Section.

	Sq. Miles.	*Population*, 1820.
Connecticut	5,050	267,181
Maine,	32,190	297,340
Massachusetts,	7,250	516,420
Peninsula, Michigan,	34,000	8,491
New Hampshire,	8,080	243,266
New Jersey, ½	3,935	128,700
New York,	46,000	1,332,744
Rhode Island,	1,580	79,413
Vermont,	8,278	234,846
	146,313	3,108,401

No. 2. Middle Section.

	Sq. Miles.	*Population*, 1820.
Columbia, District of	100	22,614
Delaware,	2,120	55,282
Kentucky,	37,680	434,644
Maryland,	10,000	260,222
New Jersey, ½	3,935	128,700
Ohio,	40,000	576,572
Pennsylvania,	47,000	1,017,094
Virginia,	66,000	603,074
Illinois,	58,900	52,788
Indiana,	34,000	145,758
Missouri,	63,000	55,988
	362,735	3,352,736

No. 3. South-Eastern Section.

	Sq. Miles.	*Population*, 1820.
Carolinas, N and S.	83,270	655,630
Florida,	54,000	185,000
Georgia,	61,000	189,563
	198,270	850,193

No. 4. South-Western Section.

	Sq. Miles.	*Population*, 1820.
Alabama,	51,770	85,451
Arkansas territory,	121,340	11,579
Louisiana,	48,220	73,383
Mississippi,	51,000	42,176
Tennessee,	43,265	339,925
	315,595	552,514

SUMMARY.

Sections.	*Area in Sq. Miles.*	*Aggregate Pop.*	*Pop. Sq. Mile.*
Northern,	146,313	3,108,401	21 2-10
Middle,	362,735	3,352,736	9
South-eastern,	198,270	850,193	4
South-western,	315,595	552,514	1 4-10
	1,022,913	7,863,814	

From the above data it is shewn, that nearly one half the entire white population of the nation, was condensed on about the one seventh part of the inhabited territory, nor have the relations it is probable much changed since 1820. Glaring as are the inequalities when the two castes are included, they become appalling when the blacks are excluded. We have seen that on the two southern sections, over the great space of 513,865 square miles, there existed eight years past, only 1,402,707 white persons, or not three to the square mile.

The two extremes of human society, are the hunter and the manufacturer; I leave it to casuists and politicians to determine, to which extreme that country inclines, where the population is thin, and where the mere crude raw material is exchanged for necessaries or luxuries. Your No. 39, December 12th, is rich in commentaries on this text. One document, Mr. Whipple's letter, is itself a volume. "*Two hundred and twenty thousand within the mills, are sufficient*," says that practical statesman, "*to spin and weave* 1,000,000 *bales of Cotton annually, more than is at present grown*," (in the United States.)

It is now nearly thirty years since I removed to the south, and settled near Natchez. Cotton had then but recently superceded indigo, as the staple of the country. The rage for large crops and high prices prevailed, as in such a situation must prevail. The very necessaries of life, bread and clothing, were to be purchased from abroad. Men of sense saw the absurdity of their own conduct, but year followed year, and custom prevailed over prudence and common sense.

The picture drawn under your editorial head in No. 39, vol. 10, seemed when I read it, to have been drawn from realities I have seen times without number, and applies over a space in the United States I dread to particularize.

Men are unwilling to ascribe the evils they suffer, or imagine they are to suffer, to their own errors, and seek on all sides for objects of blame and censure. The tariff is now the demon of mischief, and grave senators in their wrath, have actually appeared in the great hall of national legislation, clothed from their own wheels and looms. County meetings have been held, and such was the heart burning hatred of the tariff, that the members came to the terrific resolution, "*to practice the most rigid economy: and to lessen the exportation of the raw material, and the importation of manufactured articles.*"

If such indeed are the effects of the tariff, it is not simply a national, but an individual benefaction. It is already, agreeably to the very denunciations of its opposers, effecting a great and permanent moral revolution; a revolution which might secure to an immeasurable extent, individual independence and happiness.

The *state* of internal improvement, and the *locality* of internal improvement in the United States, ought to operate when examined as a severe lesson. The extent of canals now actually in operation, or in progress towards completion, is, when we regard the population in the aggregate, an astonishing amount; but, where are those improvements? Why perhaps nineteen-twentieths are north and west of the Potomac.

There is more canal and road improvement now in progress in the United States than in all the world beside; but this improvement is almost exclusively in the non slave states, or those where slaves are few. The greatest of all possible improvements, therefore, would certainly be that of introducing manufactures into the slave states, and by their means give employment and support to the slaves. This revolution, if it did not produce *rigid economy*, would at least lessen the *exportation of raw material, and the importation of manufactured articles*; and it may be assumed as a postulate, that no tariff can either greatly increase or diminish, the inherent and inseparable evils of *exporting* raw material, and with the proceeds purchase back the same material with its increase of value as a manufactured article. Senators and county orators may disguise the source of the mischief as much as they can, but where a people are few in numbers, and those numbers engaged only in producing staples in the least valuable state, and depending on this brute matter for the luxuries of life, wretchedness must be the consequence.

As to myself, as an humble individual, if I could effect such a purpose, I would leave the slave states free of the tariff, and by that means enable the white and free part of the population to look deeper for the evils they suffer, than the mere difference of the place where those coats are made which they ought themselves to make.

WILLIAM DARBY.

LADIES' DEPARTMENT.

(From the Richmond Enquirer.)

FEMALE PATRIOTISM.

The manuscript of the following interesting letter was politely forwarded to us by a gentleman of Baltimore, and was found among some old papers of a distinguished lady of Philadelphia. It is a copy of a letter from a lady of Philadelphia to a British officer at Boston, written immediately after the battle of Lexington, and previous to the declaration of independence; it fully exhibits the feelings of those times. A finer spirit never animated the breasts of the Roman matrons, than the following letter breathes:

Sir,—We received a letter from you, wherein you let Mr. S. know that you had written after the battle of Lexington, particularly to me; knowing my martial spirit, that I would delight to read the exploits of heroes. Surely, my friend, you must mean the New England heroes, as they alone performed exploits worthy of fame—while the regulars, vastly superior in numbers, were obliged to retreat with a rapidity unequalled, except by the French at the battle of Minden. Indeed, General Gage gives them their due praise in his letter home, where he says Lord Percy was remarkable for his activity. You will not, I hope, take offence at any expression that, in the warmth of my heart, should escape me, when I assure you, that though we consider you as a public enemy, we regard you as a private friend; and while we detest the cause you are fighting for, we wish well to your own personal interest and safety. Thus far by way of apology. As to the martial spirit you suppose me to possess, you are greatly mistaken. I tremble at the thoughts of war; but of all wars, a civil one: our all is at stake; and we are called upon by every tie that is dear and sacred, to exert the spirit that heaven has given to us, in this righteous struggle for liberty.

I will tell you what I have done. My only brother I have sent to the camp with my prayers and blessings; I hope he will not disgrace me; I am confident he will behave with honour, and emulate the great examples he has before him; and had I twenty sons and brothers, they should go. I have retrenched every superfluous expense in my table and family: tea I have not drank since last Christmas, nor bought a new cap or gown since your defeat at Lexington, and what I never did before, have learnt to knit, and am now making stockings of American wool for my servants; and in this way do I throw in my mite to the public good. I know this, that as free I can die but once, but as a slave I shall not be worthy of life. I have the pleasure to assure you that these are the sentiments of all my sister Americans. They have sacrificed both assemblies, parties of pleasure, tea drinking and finery, to that great spirit of patriotism, that actuates all degrees of people throughout this extensive continent. If these are the sentiments of females, what must glow in the breasts of our husbands, brothers and sons? They are, as with one heart, determined to die or be free. It is not a quibble in politics, a scheme which few understand, which we are contending for; it is this plain truth, which the most ignorant peasant knows, and is clear to the weakest capacity, that no man has a right to take their money without their consent. The supposition is ridiculous and absurd, as none but highwaymen and robbers attempt it. Can you, my friend, reconcile it with your own good sense, that a body of men in Great Britain, who have little intercourse with America, and of course know nothing of us, nor are supposed to see or feel the misery they would inflict upon us, shall invest themselves with a power to command our lives and properties at all times and in all cases whatsoever? You say you are no politician. Oh, sir, it requires no Machiavelean head to develop this, and to discover this tyranny and oppression. It is written with a sunbeam.—Every one will see and know it, because it will make them feel, and we shall be unworthy of the blessings of heaven, if we ever submit to it.

All ranks of men amongst us are in arms. Nothing is heard now in our streets but the trumpet and drum; and the universal cry is, "Americans to arms." All your friends are officers: there are captains S. D., lieutenant B. and captain J. S. We have five regiments in the city and county of Philadelphia, complete in arms and uniform, and very expert at their military manœuvres. We have companies of light horse, light infantry, grenadiers, riflemen, and Indians, several companies of artillery, and some excellent brass cannon and field pieces. Add to this, that every county in Pennsylvania, and the Delaware government, can send two thousand men to the field. Heaven seems to smile on us; for in the memory of man never were known such quantities of flax, and sheep without number. We are making powder fast, and do not want for ammunition. In short, we want for nothing but ships of war to defend us, which we could procure by making alliances: but such is our attachment to Great Britain that we sincerely wish for reconciliation, and cannot bear the thoughts of throwing off all dependence on her, which such a step would assuredly lead to. The God of mercy will, I hope, open the eyes of our king that he may see, while in seeking our destruction, he will go near to complete his own. It is my ardent prayer that the effusion of blood may be stopped. We hope yet to see you in this city, a friend to the liberties of America, which will give infinite satisfaction to,

Your sincere friend, C. S.

To Captain S. in Boston. [*Niles' Acts of Rev.*

What crime is that, which, divided so as to make two words, expresses masculine mirth?—*Manslaughter.*

SPORTING OLIO.

(From Loudon's Encyclopædia of Agriculture.)

MANAGEMENT AND WORKING OF THE HUNTER.

The managing and working of the hunter includes his preparation for hunting, his condition, and his treatment while taking his regular day's work in the field, whether after buck, fox or hare hounds.

The preparation of the hunter must, like that of the race horse, be commenced by an estimate of his state and condition. If taken fresh from grass, it should be in due time; first, that he may be well prepared; and next, because the grass does not yield much nutriment in the heat of summer. A still better method is to continue to let him run out in the day and graze, having a shed to house himself from heat and rain. He is also to be fed and exercised, nearly as in the common training, for hunting condition. In this way he is sure to be free from cracks, hide-bound or surfeit; and he will prove infinitely more hardy afterwards. It is even the practice with some of the best sportsmen to allow their horses to run out all the hunting season, unless the weather be very severe; when they are only stabled in a loose place. They are allowed as much corn as they can eat, and are found, if a little rougher in their coats, infinitely superior in hardihood, and exemption from the dangers of cold.

A hunter taken from grass, or in very low case, should be treated as already detailed under condition. Great care must be taken that all the alterations in heat of stable, clothing, feeding, &c. are gradually brought about; by which means his flesh will harden gradually, and by using first walking exercise, and increasing it as he advances in flesh and strength, his wind also will become excellent.

In the physicking of hunters, particularly when they are low in flesh, much caution is requisite, that it be not over-done. It is the practice with some, and by no means a bad one, to give no physic, but to give more time in the preparation; others again give mild grass physic, which is an excellent plan when the weather is fine.

The preparation of a hunter in full flesh and not from grass, depends principally on regular exercise, and the best hard food; physicking him or not, according as he may be suspected to be foul, or as his wind may seem to want mending; but above all, whatever is done, should be done regularly; and his exercise should be rather long continued than violent. Oats, with beans, are the proper hard food for hunters, taking care that the beans do not constipate the bowels; which must be obviated by bran mixed with other food, if such should be the case. Bread is not necessary, but for tender delicate horses; but every thing should be of the best.

The day before a horse is to hunt, it is common to treat him somewhat differently, but which is seldom necessary. It is evident he should be well fed, and that not late at night, that he may lie down early. Some feed in the morning, which others avoid; but when it is considered, as has been fully explained, how ill a horse bears fasting, it will be at once seen, that if very early in the morning, a by five o'clock, he could be fed with a moderate quantity of corn wetted, it would tend to support him through the day.

On the return of a horse from hunting, the care bestowed on him should be extreme; as on it depends the immediate recovery of his strength. If he have fasted very long, and particularly if he be disinclined to eat of himself, horn down a pint of ale, with two pints of thick gruel. No prudent sportsman will bring in a horse hot; but if unavoidable accidents prevent this caution, let the horse be again led out for a few minutes, hooded and clothed; but he must have fresh clothes when afterwards dressed. Encourage him to stale as quickly as possible; after which proceed to hand-rub him all over carefully, placing before him a little of the best hay well sprinkled with water. If he refuse this, offer him three quarts of very clean chilled water. When perfectly cleaned, let his feet be carefully examined, that stubs have not pierced them, or that his shoes have not been forced awry, by over-reaching, or by the suction of clayey ground: or that thorns be not lodged in his knees, hocks, and sinews. After all these matters have been well attended to, remove him from his stall to a loose box, well bedded up. A loose box is invaluable to a hunter; it gives room for stirring to prevent the swelling of the legs; and is better than bandaging when it can be avoided, which gives a disinclination to lie down. If the horse be off his food the next day, give him a cordial ball and a malt mash, and afterwards a few cut carrots, which will assist to bring him round more speedily.

(From the Hunting Directory.)

HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound.—Of the Size, Colour, and Breeding of Hounds, &c.

(Continued from page 327.)

Hence the inferiority of the greyhound's sense of smell will be easily perceived: his head is narrow, while his lips are thin and compressed; and in consequence of this inflexibility, and the contracted structure of the head, the requisite breadth and extension of nerve are inadmissible; and to make up, as it might seem, for the defect, nature has endowed him with a celerity which is not to be met with in any other species of the dog.

All dogs, therefore, with broad heads, must possess superior organs of smell; but it does not appear that a narrow or sharp nose presents any obstacle, as the main bulk of the olfactory nerves is situated in the head. The wolf and the fox appear to have sharp noses; but their heads are remarkably broad and capacious:—their olfactory organs are unquestionably exquisite.

Somerville seems to have been completely ignorant respecting the cause of the dog's sense of smell. Beckford was equally so. The following epistle, however, throws a flood of light upon the subject, of which it is also a very strong and admirable illustration. Will. Deane, in writing to Lord Fitzwilliam, his master, observes, "that he could not guess at Lord Foley's dislike to the hound called Glider, then sent, which was of the best blood of the country, being got by Mr. Meynell's Glider out of Lord Fitzwilliam's Blossom, and was moreover the most promising young hound he had ever entered, unless his Lordship took a distaste to the *largeness* of his head; but he begged leave to assert, although it might appear a trifle out of size, there was a world of serious mischief against the foxes contained in it." Glider proved himself a first rate hound; his superiority indeed was so manifest, that he became a favourite stallion hound, "notwithstanding the magnitude and inelegance of his head."

When Mr. Hay hunted the country in the neighbourhood of Newcastle-under-lyme (at present hunted by Mr. Wicksted), I recollect noticing the exertions of a hound (Gaoler, I believe, he was called) whose head was considered out of proportion, but who was, nevertheless, the best hound in the pack; and I make no doubt, should these remarks fall under the observation of Mr. Hay, that he will have a perfect recollection of this hound, and, for aught I know, he may still be in possession of him.

The Quorndon pack, though it has frequently changed masters, has always stood deservedly high in the estimation of the fox-hunter. These hounds are uncommonly fleet, and, as I observed some pages back, are calculated for Leicestershire. The Duke of Rutland's are of the same description, and hunt a similar country. Lord Lonsdale's hounds, though they hunt the neighbourhood of Melton, differ from the two former packs both in their appearance and their style of hunting: they are, for the most part, large, *leggy* dogs, and are neither so quick in drawing, nor so fleet in the chase. The Cheshire hounds (Sir Harry Mainwaring's) are much like the Quorndon and the Duke of Rutland's; and, as far as I am able to form an opinion from considerable observation, are equal to any fox-hounds in the kingdom, a circumstance indeed which I have already noticed in the earlier pages of this volume. Mr. Wicksted's hounds, when they fell under my notice, presented the appearance of being calculated for business, but it was his first season; he had not had sufficient time to render them complete as a pack, though from what I noticed of this gentleman, I am persuaded that every exertion will be made to render them so as soon as possible. I might extend similar observations to many other packs which I have followed, but it is no way necessary; those who are disposed to breed and improve, if possible, fox-hounds, will find ample materials for the purpose; nor have I the least doubt, that they are still susceptible of improvement, which will require some little time to accomplish, and can only be brought about by a variety of crosses.

The best fox-hounds, perhaps, that were ever seen, were those bred by the late Col. Thornton; and this gentleman, to accomplish his purpose, resorted to the method I have just mentioned. Madcap and Lounger, two of his most celebrated fox-hounds, could scarcely be considered as thoroughly English, since, on the side of the sire, they were of Continental extraction. Colonel Thornton, however, was never possessed of many fox-hounds—about sixteen or twenty couple, if I correctly understood Sir Edward Smith Dodsworth, as we rode together towards the town of Pontefract, after a long and distressing run with the Badsworth, in the month of November, 1825, was the extent of his pack. (*To be continued.*)

MISCELLANEOUS.

To Kindle a Coal Fire.

Let the stove or grate be empty or nearly so; put in a few blocks of dry wood, or a handful or two of charcoal in the bottom, set fire to these, and cover them over with lumps of coal about the size of a walnut; shut the stove door, or put up the blower, and in five minutes the whole will be ignited, when the stove or grate is to be filled up with coal. If the grate is of a proper size, and the draft properly regulated, a supply of coal every twelve hours will keep the fire from going out from one year's end to the other. No person need, unless he chooses, let his fire go out more than once in a year.

We will take this opportunity of correcting an error which seems to be generally entertained, that our coal requires a very powerful draught to keep it in a state of ignition. After it is once ignited, nearly the reverse is the fact. It requires a quick draught at first until the fire is lighted, that is if you are in haste to have the room warm, but not otherwise, and then the draught necessary to ignite a wood fire is amply sufficient for one made of anthracite coal. There ought to be some mode of quickening the draught in every convenience for using stove coal; for the facility of speedily kindling and increasing the fire. But when the fire is once ignited, no more draught ought to be applied to it than will keep the coal in lively combustion. There are but few chimneys which have not more draught than is necessary. One other matter ought to be observed; the bottom of the grate should not be more than four or five inches from the floor.

[*Miner's Journal.*

COAL TRADE OF THE SCHUYLKILL.

Shipments of Coal from Mount Carbon to Philadelphia:—

			Tons.
Per last report	1921	boats carrying	46,769
19th to 23d Dec.	14	do. do.	301
	1935		47,070
Shipments of produce from Mount Carbon, to the same date,	149		
Total,	2084		

THE FARMER.

Baltimore, Friday, January 9, 1829.

☞ We had expected to give in this paper much later news from Europe; but the mail of the morning brings no account of any arrival from France or England. Our latest dates from the former are as far back as the 4th, and those from England no later than the 8th of November.

☞ We sincerely regret, on this, the anniversary of the glorious battle of New Orleans, to announce to the readers of the American Farmer, the death of her who was through life, by the hero of that memorable day, fondly cherished and esteemed as his better half. Rachel Jackson, the wife of the President elect, departed this life at the Hermitage, about 9 o'clock on the evening of the 22d of December, 1828. A brief personal acquaintance with the deceased, and ample reports from friends and connexions at Nashville, who knew her well, adequately sustain all that can be said in honour of her virtues as an affectionate wife, a pious christian, and a constant friend to the poor and the afflicted. In any station she would have won the respect and esteem of those who are willing to do homage to the noblest traits of the female character. It is not all the pomp and circumstance of place and power, that can console the surviving husband for the loss of such a companion—such a friend as was the deceased, under every aspect of his fortunes, to General Jackson.—*8th Jan.* 1829.

☞ Important Invention—Rail-Road Car.—On the 26th of December, there was a large assemblage of citizens at the Exchange, to witness the exhibition of the newly invented rail-road car, by Mr. R. Winans, of New Jersey. Among the visiters was the venerable Charles Carroll, of Carrollton. It has already attracted the attention of the Directors of the Baltimore and Ohio Rail-Road Company, and they are about to put the invention to a full practical test; and should the result in any reasonable manner come to expectation, it will establish forever the entire superiority of rail-roads over canals. [*Gaz.*

Maryland.—The term for which Gov. Kent is constitutionally eligible having expired, the Legislature of the State proceeded on Monday to the election of a Governor for the year ensuing. Daniel Martin, of Talbot county, and Geo. E. Mitchell, of Cecil county, were put in nomination. On counting the ballots, it appeared that 90 votes were taken, of which 52 were for Mr. Martin, and 38 for Col. Mitchell; whereupon, it was declared in both house that Daniel Martin was duly elected Governor of Maryland for the ensuing constitutional period.

The Executive Council.—On Tuesday the Legislature elected the Executive Council of Maryland for the ensuing year. We are indebted to our friend General Steuart, for the following result of the ballotting:—

Adams Ticket.	
Thomas Davis,	52
Luke Tiernan,	51
Rezin Estep,	51
Littleton I. Dennis,	51
Thomas S. Thomas,	51
Jackson Ticket.	
Otho Scott,	38
Hugh McElderry,	38
Robert D. Wright,	38
Arnold E. Jones,	38
Robert N. Wason,	37

SILK.

Sir, *Cincinnati, 15th December,* 1828.

Inclosed is a part of a sample of reeled silk, presented to the Hamilton County Agricultural Society, by Miss Lydia Hollingsworth, of Xenia, Ohio. It is her first effort at producing the article. You will, however, deem it a beautiful demonstration of the practicability of raising silk in Ohio.

From various communications made to this society, the result of well conducted experiments, we consider it a well established fact, that silk of the best quality can be profitably produced in the west, from the native mulberry. Yours, &c.

J. S. Skinner, Esq. D. C. WALLACE.

Silk.—*Substance of Mr. Skinner's Reply.*

The specimen of silk made by Miss Hollingsworth, of Ohio, is excellent, and had a little, very little, more work been bestowed upon it, it would have been equal in every respect to the best of the imported article—nay, I will say that it would have been equal to that of the Miss Waties, of South Carolina, which as yet stands without a rival in all the qualities which make silk precious. The work that ought to have been bestowed, consists in combining the threads so as to comprise from 25 to 30 cocoon fibres, partially twisting it, and extracting the gum by boiling it a couple of hours in clear rain water, impregnated with soap. This would have rendered the silk of Miss Hollingsworth worth fourteen dollars a pound. In its present state it is worth only from six to eight dollars a pound.

That Ohio is well calculated for the culture of silk remains no longer doubtful—indeed our whole country is admirably adapted to this branch of industry.

Those who have given most attention to the subject are apprehensive, however, that experience will yet demonstrate the propriety of substituting the white for the native mulberry—if good silk can be profitably made from the native, far better silk, say they, can be more profitably made from the white mulberry; and this will sooner or later be acknowledged on all hands. Small specimens of the best silk may be made from the native mulberry, but generally, and upon a large scale, it will be found, in their opinion, that this cannot be done.

☞ Silk.—We have received from Alex'r Reed, Esq, of Washington, Pa. a piece of manufactured silk, made, *from the silk worm to the loom*, by a young lady, a member of that industrious and enterprising people, the "Harmony Society." This young lady appeared at the Fair held in Washington last fall, clad in an elegant silk dress of her own manufacture. This silk dress was of a quality far superior to the specimen sent us; but as it was all made use of, our friend was only able to send us some of the latter description—this, however, being her first attempt, is probably even more precious in the eye of the agriculturist than that to which more experience contributed its powerful aid, as it shows to the new beginner, *what may be done* at the commencement. The quality of the specimen of silk sent us, is far superior to any thing we had imagined had been arrived at in our country. It is equal to that of many ladies' dresses, and such as no lady would be ashamed to wear on any occasion. This silk is the product of a few eggs sent the young lady three years ago, in a letter, by Mr. Reed, who, as our readers have had occasion to know, is an intelligent encourager of agricultural improvement. In his letter, he says that the stores in Washington are selling sewing silk made in Washington county, where four or five years ago such an idea was laughed at. Mr. Reed bestows a well merited eulogium on the Hon. Charles Miner, member of Congress, from West Chester, Pa. who brought the subject before Congress, and adds—"I have no doubt it would afford him pleasure to know, that we in the "back woods" are trying to make silk.

☞ In North Carolina, there is a Board of Agriculture, established by the legislature, composed of delegates from the different counties, whose object is the general improvement of agriculture in that state. This Board held its annual meeting on Tuesday, 23d ult. and among other proceedings, resolved to obtain 1000 grape vines, a sufficient supply of silk worm eggs, and a number of Merino sheep, for the use of the several agricultural societies of the state. The Board also publish, annually, a pamphlet containing such articles as they may deem important for the diffusion of information on the various branches of agriculture. From a notice in the last Raleigh Register, we infer that this pamphlet is now in the press, and that its contents are unusually interesting. Among other subjects, the best mode of cultivating land, and raising the various kinds of crops, the process of making wine, and directions for cultivating silk, are mentioned. The objects of this Board are most praiseworthy, and its effects cannot fail to be beneficially felt by the people.

☞ Hemp.—The Kentucky Gazette states, that the price of hemp at Lexington, in that state, is *four dollars* per 100 lbs., about half the price it commands in the Baltimore market. This results from the confinement of all the western states to a single market, and that a very distant one. How changed will be the condition of the people of Kentucky, Ohio, Tennessee, and indeed those of all the transmontane states, when the Baltimore and Ohio rail-road shall have been completed. In the single article of hemp, the farmer will receive an additional price, or, which is the same thing, save in the cost of transportation, more on every hundred pounds than he can now make by its cultivation. The cost of transporting a ton of hemp from Lexington in Kentucky to Baltimore on the rail road, will only be *eighteen dollars*, which will make a difference in the nett receipts from a ton of hemp, between the price the cultivator now receives, and that which he will receive then in Baltimore, of at least sixty dollars a ton! Hemp is not the only article on which a saving of almost 100 per cent., or rather an increase of value to nearly the same amount, will be effected by the Baltimore and Ohio rail-road. But we deem it unnecessary to particularize, as all our readers are acquainted with the valuable productions of the western country, which are now virtually excluded from our market, and which are almost sacrificed by their exclusion. How deep is the stake which the existing population of the western country has, in the completion of the work in question! How effectually it will promote an increase of that population, and how rapidly will the augmented fruits of their industry swell, in turn, the transportation upon the road—insuring certain and great profits on investments in its stock, and diffusing all sorts of advantages through an immense district of fertile country that will enjoy its facilities.

CALENDAR FOR THE YEAR 1829.

	Sunday,	Monday,	Tuesday,	Wednesday	Thursday,	Friday,	Saturday,
January,					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
February,	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
March,	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
April,				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30		
May,						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
June,		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
July,				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
August,							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
September,			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			
October,					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
November,	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
December,			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		

MANUFACTORY OF AGRICULTURAL IMPLEMENTS GENERALLY.

The subscriber has on hand, ready for sale, a supply of his Cylindrical Straw Cutters, a machine he believes to be superior to any other in the world for that purpose. Brown's Vertical Wool Spinner, a very useful and simple machine for private family use, perhaps not equalled by any other. A full assortment of Gideon Davis' Patent Ploughs; the superiority of these over all other ploughs is so generally known, that to speak of their merit is unnecessary. A general assortment of highly improved Barshare Ploughs; Corn and Tobacco Cultivators; Patent Corn Shellers; Wheat Fans, warranted equal to any in the state of their size; Harrows; Double and Single Swingle Trees; Shovel and substratum Ploughs; superior Caststeel Axes, Mattocks; Picks and Grubbing Hoes; superior Oil Stones and Points, and Heels, of all sizes for Davis' Patent Ploughs, always on hand. Blacksmith work and repairs done at short notice and at customary prices. The subscriber intends keeping no article for sale in his line, but such as will give satisfaction.

N. B. Tough White Oak Butts, six feet long, and not less than eight inches diameter at the small end, large size quartered, will be received for work.

Orders received for Fruit Trees from Gray's Nursery. All orders received by mail (post paid,) will receive due attention. JONA. S. EASTMAN,

No. 36 Pratt-st., opposite Marriott & Warfield's hotel

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co. Commission Merchants and Planters' Agents.

Tobacco.--Maryland, Scrubs, ground leafs, $5.00 a 10.00—seconds, ordinary, 3.50 a 4.50—red, 4.50 a 6.50—fine red, 6.00 a 8.00, for wrapping—Ohio, common, 5.00 a 8.50—good red, 6.00 a 8.00—yellow, 10.00 a 16.00—Rappahannock, 2.50 a 3.50—Kentucky, common 3.50 a 5.00—wrapping, 4.00 a 6.00.

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AGRICULTURE.

[The following communication from Judge Buel comes very opportunely and acceptably; answering in part the inquiries published in the American Farmer of the 3d of October last, at the instance of one of our most eminent and scientific physicians, of whom certain information in regard to plaster of Paris in this country, was sought by his correspondent in France.

As they are short, we will repeat the inquiries, and thus justify to our readers the appropriation of some columns, in addition to the article from the Richmond Enquirer so recently published, to the same subject.

"Mr. Skinner would greatly oblige Dr. Chatard by giving him his opinion on the following questions concerning the Plaster of Paris; viz:

1st. Is that substance used now as much as formerly?

2d. In what quantity is it used?

3d. Is it a real manure?

4th. How does it act?

5th. What sort of lands does it soit?

6th. Is it true that after one or two crops, the land on which it has been thrown, is much impoverished? If so, why and how?"]

(From the New York Farmer.)

ON USE OF GYPSUM IN AGRICULTURE.

Sir,—The extensive application of Plaster of Paris in the interior of this state, to the purposes of husbandry, induces me to hazard a few remarks upon the causes of its fertility, and the soils and crops to which it may be advantageously applied. I perceive that many of our farmers, although slow to adopt this or any other innovation upon old habits, now that they have become satisfied of the benefit of plaster in *some* cases, seem to infer that it is useful in *all*, and thus apply it without "rhyme or reason." The consequence, I fear, will be to bring it into disrepute and lead to its rejection in cases where its utility is unquestionable.

The most common opinion is, that this substance benefits crops by drawing moisture from the atmosphere. This theory proves too much: for if it has so strong an affinity for moisture, it will attract it from the soil as well as from the atmosphere; and thus rob the plants, instead of increasing their supply, of this essential agent of vegetable development. But it has been proved that gypsum absorbs moisture far less powerfully than putrescible manures, or even common soils, and retains it a shorter time. Johnson has given us, in his essay on the use of salt in agriculture, tables exhibiting the absorbent and retentive powers of different substances. I subjoin an extract in proof of my position:

		parts.
1000 parts.	"Horse dung evaporated previously to dryness, at a temperature of 100°, absorbed, during an expoure of three hours to air saturated wth moisture at 62°,	145
	Putrified tan bark, under like circumstances, (66°,)	145
	Unputrified, do.	115
	Cow dung, do.	180
	Pig do. do.	120
	Sheep do. do.	31
	Refuse Salt, (60°,)	49
	Burnt Clay,	29
	The richest soil, (in one hour,)	23
	Lime, (part carbonate,)	11
	Gypsum,	9

		Minutes.
10 parts.	Pig dung evaporated to dryness, at a temperature of 15° (the heat of a meridian sun at midsummer,) and then moistened with six parts of water, required for being reduced to dryness again, at the above temperature,	135
	Horse dung, under similar circumstances,	90
	Common Salt,	73
	Rich Soil,	32
	Poor Soil, (silicious,)	25
	Gypsum,	18

Thus it appears that the absorbent power of horse dung is sixteen times greater than that of gypsum, and its retaining power seven times greater. Let us not lose sight of another important fact which these experiments suggest, viz: that the power of a soil for absorbing and retaining moisture, and of course of resisting drought, is in the ratio of the dung and vegetable matter which it contains—rich soil suffering least, and poor soil most in dry weather. Ploughing and hoeing frequently tend very much to increase, or rather to bring into full operation, these qualities of soils for absorbing and retaining moisture.

After water has been expelled from plaster of Paris by burning or heating, it then again absorbs it powerfully—and not only absorbs, but solidifies it. It is by this process that it is fitted for cornices, busts, &c.

Another agency which has been ascribed to plaster in the process of vegetation, is that of accelerating putrefaction in the soil—of rendering inert vegetable matter soluble, and thus increasing the supply of vegetable food. The experiments of Sir H. Davy disprove this theory, and show that gypsum rather retards than increases animal and vegetable putrefaction.

Some, supposing that plants are gifted with sensation, contend, that gypsum acts as a condiment to the vegetable, as spices do to the animal system, and benefits by stimulating their absorbent and assimilating organs. I am not physiologist enough to discuss this point, and will therefore barely observe, that if this is so, all plants are not equally sensitive; for many are certainly not affected by this stimulus.

Others again have maintained, that plaster owes its utility to the sulphuric acid (oil of vitriol,) which it contains; and of course that a decomposition or separation of parts, takes place in the soil. Sulphuric acid has been applied, blended with different parts of water, without seeming to confirm this theory. But a sufficient objection is found in the fact, that gypsum is detected in the clovers and other plants, showing that no decomposition has taken place, and that the sulphuric acid, remaining chemically combined with its base, could not have acted separately.

Sir H. Davy, I think, has suggested the true cause of the fertility in gypsum: that it forms as necessary a constituent of some plants, as a few drops of peppermint do to a mint sling; and that when the soil does not contain it, in the small proportion needed, its application is necessary for their complete development and perfection—*and that it is only useful to such crops as yield it on analysis, and on soils where it is deficient.* Of the plants which contain gypsum, Sir H. Davy has enumerated the clovers, lucerne, sanfoin, and some other grasses, in which he believes it may exist to the amount of three or four bushels on an acre of these plants. The turnip crop yields it in small quantities; and if this theory is correct, Indian corn and potatoes will afford it, as it evidently benefits these crops. He adds, that *gypsum is not taken up in corn crops*, such as wheat, rye, barley, &c. A course of experiments during ten years, has satisfied me that these crops are not benefited, directly, by its application, but often indirectly, by increasing the growth of other vegetables, which ultimately enrich the soil.

The soils which plaster most benefits, are the poor lean sands and sand loams; and its effects diminish in proportion as these become more rich, adhesive, or wet. The dung of cattle contains gypsum; so does peat or bog earth. To lands often dunged, its effects are consequently less perceptible. That it does not prove efficacious upon wet lands may be accounted for by their generally abounding in bog soil, and not usually producing plants which contain gypsum.

As to the time and manner of applying plaster, different opinions prevail. It cannot enter the mouths of plants until it is dissolved, or become soluble. To effect this, 500 times its weight of water is found to be requisite. This would seem to indicate that it should be sown early on grass lands. My practice has been to sow in March, or early in April, and if practicable, upon a light snow. When sown late, and a dry summer ensues, its benefits are frequently not perceptible, probably from the circumstance of its not having been dissolved. I have followed the example of two great pioneers in the improvement of American husbandry, the late Judge Peters and John Taylor, in sowing it for Indian corn and potatoes before the last ploughing. I consider the benefit in this method more certain, and the labour less, than in that of strewing it on the hills of the growing crop.

The experience of practical men seems to have fixed the proper quantity at from one to two bushels the acre.

Plaster appears partially to have lost its efficacy in some parts of Pennsylvania, where it has been longest and most successfully used. It is said, to adopt the common language, that the soil has become tired of it. I suspect too much reliance has been placed upon it; and that it has been used as a substitute, rather than as an auxiliary, for old fashioned barn-yard dung. There is another way of accounting for its apparent failure. Has not the soil become tired of the plants which it aids, and which may have exhausted it of some other constituent? In the Norfolk system of alternate husbandry, it was long ago ascertained that clover could not be sown to advantage oftener than every second course, or once in eight or ten years, and other grasses were consequently alternated with it. The practice in Pennsylvania has been, I believe, to continue sowing clover every four or five years.

The preceding view of the subject, and my personal experience, induce me to offer the following rules for the consideration of the farmer:

1. That plaster may be applied to pasture and meadow lands, not absolutely wet, with strong probability of profit, as it undoubtedly forms a constituent of many of the grasses, increases their vigor, and thickens the soil.

2. That it may be applied, with equal prospect of success, to the maize and potato crops, and I think, to legumes, such as peas, beans, &c. These being sown, as good husbandry implies, upon lands naturally free from surface water, or rendered so by draining.

3. That its benefits are greatest upon sands, gravels and light loams; and that these benefits diminish in proportion as the soil becomes rich, either naturally or by the application of dung.

4. That plaster can never become a substitute for dung, but may be rendered a valuable auxiliary, benefiting some crops directly, and all remotely, by increasing the volume of vegetable matter, which ultimately becomes the food of plants.

5. That from one to two bushels per acre is a sufficient annual dressing for lands.

6. That upon grass it is most profitably sown early, that the vernal rains may render it soluble; and upon tilled crops before the last ploughing, that the moisture in the soil may perform this office in season; in both cases, to benefit the summer's growth.

And, finally, that its use can be best regulated by the farmer himself carefully noting its effects upon different crops, soils, &c., always leaving a strip unplastered upon crops which it is supposed to benefit, and plastering a strip upon those on which its benefits are doubtful.

Very respectfully, J. BUEL.

Albany Nursery, November 24.

(From the Southern Agriculturist.)

On the Management of the BUTLER *Estate, and the Cultivation of the* SUGAR CANE; *by* R. KING, *jr. addressed to* WILLIAM WASHINGTON, *Esq.*

DEAR SIR, *Hampton, (near Darien,) 13th Sept.* 1828.

Your letter of the 29th August came to hand on the 8th inst. Nothing would afford me more satisfaction than to impart the little knowledge I possess of Southern Agriculture and plantation economy, if such would benefit others.

We are dependent on each other, and each should contribute his mite. Therefore, I shall comply with your request as minutely as possible.

The reputed good condition of the Butler estate, has been the work of time, and a diligent attention to the interest of said estate, and the comfort and happiness of the slaves on it.

To Mr. R. King, sen. more is due than to myself. In 1802, he assumed the management. The gang was a fine one, but was very disorderly, which invariably is the case when there is a frequent change of managers. Rules and regulations were established, (I may say laws,) a few forcible examples made, after a regular trial, in which every degree of justice was exhibited, was the first step. But the grand point was to suppress the brutality and licentiousness practised by the principal men on it; (say the drivers and tradesmen.) More punishment is inflicted on every plantation by the men in power, from private pique, than from a neglect of duty. This I assert as a fact; I have detected it often. No person of my age knows more the nature of these persons than myself; since childhood I have been on this place, and from the age of eighteen to this time, have had the active management; therefore I speak with confidence. They have a perfect knowledge of right and wrong. When an equitable distribution of rewards and punishments is observed, in a short time they will conform to almost every rule that is laid down.

The owner or overseer knows, that with a given number of hands, such a portion of work is to be done. The driver, to screen favourites, or apply their time to his own purposes, imposes a heavy task on some. Should they murmur, an opportunity is taken, months after, to punish those unfortunate fellows for not doing their own and others' tasks. Should they not come at the immediate offenders, it will descend on the nearest kindred. As an evidence of the various opportunities that a brutal driver has to gratify his revenge, (the predominant principle of the human race,) let any planter go into his field, and in any negro's task, he can find apparently just grounds for punishment. To prevent this abuse, no driver in the field is allowed to inflict punishment, until after a regular trial. When I pass sentence myself, various modes of punishment are adopted; the lash, least of all. Digging stumps, or clearing away trash about the settlements, in their own time; but the most severe is, confinement at home six to twelve months, or longer. No intercourse is allowed with other plantations. A certain number are allowed to go to town on Sundays, to dispose of eggs, poultry, cooper's ware, canoes, &c. but must be home by 12 o'clock, unless by special permit. Any one returning intoxicated, (a rare instance,) goes into stocks, and is not allowed to leave home for twelve months.

An order from a driver is to be as implicitly obeyed as if it came from myself, nor do I counteract the execution, (unless directly injurious,) but direct his immediate attention to it. It would be endless for me to superintend the drivers and field hands too, and would of course make them useless. The lash is, unfortunately, too much used; every mode of punishment should be devised in preference to that, and when used, never to lacerate: all young persons will offend. A negro at twenty-five years old, who finds he has the marks of a rogue inflicted when a boy, (even if disposed to be orderly,) has very little or no inducement to be otherwise. Every means are used to encourage them, and impress on their minds the advantage of holding property, and the disgrace attached to idleness. Surely, if industrious for themselves, they will be so for their masters, and no negro, with a well stocked poultry house, a small crop advancing, a canoe partly finished, or a few tubs unsold, all of which he calculates soon to enjoy, will ever run away. In ten years I have lost, by absconding, forty-seven days, out of nearly six hundred negroes. Any negro leaving the plantation, or field, to complain to me, is registered and treated as such.—Many may think that they lose time, when negroes can work for themselves. It is the reverse on all plantations under good regulations—time is absolutely gained to the master. An indolent negro is most always sick; and unless he is well enough to work for his master, he cannot work for himself; and when the master's task is done, he is in mischief, unless occupied for himself. And another evidence arising from the encouragement of industry, I make on this estate as good crops as most of my neighbours; plant as much to the hand, do as much plantation work, and very often get clear of a crop earlier than many where these encouragements are not held out. I have no before-day work, only as punishments; every hand must be at his work by day-light. The tasks given are calculated to require so much labour. It is as easy to cut three tasks of rice, as it is to bind two, or to bring two home. It is easier to ditch eight hundred cubic feet of marsh, than four hundred feet of rooty river swamp. There are many regulations on a plantation that must be left discretionary with the manager. In harvesting a crop of rice, some acres are heavier, or further off than others; some hands quicker, or more able than others: all these considered, make a wide difference; by giving a far and a near task to bring in, or putting them in gangs, the burthen is borne equally, and all come home at once. Frequently (always I can say,) by Friday night, I have nearly as much rice in, as if the regular task during the week had been given. There may be fifteen to twenty acres left: say, bring it in, the balance of the week is yours. By 10 to 12 o'clock, all snug, and ten to fifteen acres extra got in.

By this mode I not only gain time, but afford them some also. A man, white or black, that knows such will be the result, will seldom deviate from the right course. All these things are not to be slipped into at once; it has been the work of nearly twenty-seven years, and I find many things yet to correct. With regard to feeding, they have plenty of the best corn, well ground by water and animal power, with a portion of fish, (No. 3 mackerel,) beef, pork and molasses, and when much exposed, a little rum. To each gang there is a cook, who carefully prepares two meals per day. The very grinding and cooking for them affords the time that they apply to their own purposes: if their provisions was given unground, many would trade it off, or be too lazy to cook it. Any one that has spent a night on a plantation where the negroes grind their own corn, must recollect the horrible sound of *a hand mill, all night.* It is this that wears them down. He goes to the mill; it is occupied; he must wait until the first has done, and so on. Some are at it all night; their natural rest is destroyed. Many masters think they give provision and clothing in abundance; but unless they use means to have these properly prepared, half the benefit is lost. Another great advantage in grinding and cooking for them is, that the little negroes are sure to get enough to eat. On this estate there are two hundred and thirty-eight negroes, from fifteen years down, and every one knows that they do not increase in proportion in a large gang, as in a small one, with the same attention. I cannot exemplify in too strong terms, the great advantage resulting from properly preparing the food for negroes.—They will object to it at first; but no people are more easily convinced of any thing tending to their comfort than they are. In fact, a master does not discharge his duty to himself, unless he will adopt every means to promote his interest and their welfare. Again, many will say it takes too many to wait on the others. An old woman for a cook, who will raise one little negro extra, which will certainly pay her wages, besides the very great comfort it will afford the others; a machine that will not cost in twenty years more than $15 per annum; a little boy to drive an old horse two days in the week, and an old man, (or even the overseer on a place of thirty hands,) to act as commissary in issuing the provisions, I am sure, well regulated, will add 25 per cent. to the owner, including gain in negroes, comfort to them, and to their master's feelings. During the summer, little negroes should have an extra mess. I find at Butler's island, where there are about one hundred and fourteen little negroes, that it costs less than two cents each per week, in giving them a feed of ocra soup, with pork, or a little molasses or hominy, or small rice. The great advantage is, that there is not a *dirt-eater* among them—an incurable propensity, produced from a morbid state of the stomach, arising from the want of a proper quantity of wholesome food, and at a proper time.

I have invariably found that women, that had been accustomed to waiting in the houses of white persons, have the largest and finest families of children, even after going into the field. I believe it arises from this circumstance, that they had contracted a habit of cleanliness, and of preparing their food properly. You, on looking round, will find this the case. An hospital should be on each plantation, with proper nurses and apartments for lying-in women, for the men, and for a nursery; when any enter, not to leave the house until discharged. I have found physicians of little service, except in surgical cases. An intelligent woman will in a short time learn the use of medicine. The labour of pregnant women is reduced one half, and they are put to work in dry situations.

It is a great point in having the principal drivers men that can support their dignity; a condescension to familiarty should be prohibited. Young negroes are put to work early, twelve to fourteen years old; four, five or six, rated a hand. It keeps them out of mischief, and by giving them light tasks, thirty to forty rows, they acquire habits of perseverance and industry.

My knowledge of the culture of the sugar cane is not very extensive. It has been cultivated with us since 1815, and has been found more profitable, (notwithstanding a partial loss of crops, occasioned by bad seed, from ignorance in the mode of preserving it,) than cotton and less precarious than rice; not so liable to be injured in gales. In 1824, from fifty-six acres, that were ground, the product was 39 hhds. of sugar, about 1200 lbs. nett each; the cane was much injured by lodging and wreck matter. The best lands for cane are strong provision land, or river swamp. If possible, the plants should be put in the ground in November, about 3 inches deep; they will be safe against frosts. Should they come up and be cut down, (unless very near the surface,) it will be a benefit rather than an injury. During the winter, water does not injure the plants; in the spring a little water and a warm sun does much damage. The beds should be stout and five feet apart; a deeper trench than for cotton; the canes laid in, one, two or three together, whole; should they be crooked, those that cover, chop them in with the hoe, avoiding the eye. It is better than cutting in plants, being more easily transported and the time saved. About March, the earth should be removed about one half; when the canes appear, hoe off, nearly baring the plant; about the 1st of May, earth should be put to the beds, and at every working the beds made larger, throwing the earth among the shoots. Strong lands will afford such a growth that very little can be done after the 15th of June until September; the canes should then be trashed, that is, removing the under leaves, as high as they are disposed to come off; and when canes come in contact with the earth, either from winds or their own weight, the trash should be put under, to prevent their taking root, which injures the juice. About the 15th to 20th of October, that part to be put by as seed is cut; two rows thrown in one alley, and some trash put over; when cold weather sets in, some earth. If covered at once, vegetation is brought forward. I have known canes to lay all winter in a canal, and be perfect. About the 1st of November we commence grinding and boiling. I do not think a cane crop heavier than a rice crop; not so much time occupied as in cutting, binding, bringing-in, thrashing and pounding; but there is more hard work to be done, in a less time, than in a rice crop. There are some planters that employ overseers at low wages, perhaps more destitute of principle than the blacks, and do them more harm than the owners good. Others, without humanity, grind out good crops, and in a few years break down the gang.—Slave owners cannot be too particular to whom they intrust the health (I may say life,) and morals of what may justly be termed, the sinews of an estate. A master, or an overseer, should be the kind friend and monitor to the slave, not the oppressor.

I notice in the 9th number of the Agriculturist, that a correspondent recommends an impenetrable fence, protected by dogs, to prevent thefts.

I have a mode, I think, preferable. I allow all to plant a small piece (oblige some,) for themselves; if one sheaf is taken from me, I take three from them; if from each other, I seize all they have; if not enough, I take the next crop. I purchase what crop they have to spare, and hope I have made them happier at home than any where else.

I have *written much about little*, and should you be able to pick out any thing useful, I shall be pleased. It will afford me pleasure, at any time, to reply to your communications.

I am, dear sir, your most obed't,

R. KING, Jr.

INDIAN CORN.

Mr. Skinner: *Richmond, Jan.* 5, 1828.

Sir,—I have been induced to make this communication to you by two recent notices in your journal; the one, of the unusual luxuriance of a stalk of corn produced in the state of North Carolina; the other, of the size and productiveness of an ear of corn raised by a gentleman on the eastern shore of Virginia. With regard to the stalks of corn which have grown on my farm, I can affirm nothing with precision, having never made these a subject of particular attention. That they should be very tall, or that the ear should shoot at an extraordinary distance from the earth, I have always regarded as a disadvantage: the plant being, by either cause, rendered more liable to the influence of the violent gusts by which we are, not unfrequently, visited during the summer months. The ear of corn presented you by the gentleman from Virginia, (Mr. Upshur,) certainly indicates considerable fertility in the soil in which it grew, and great perfection in the product of that soil; nevertheless, the specimens of Indian corn herein described, (and which by the first safe opportunity shall be forwarded to you,) will, I think, for the present at least, disappoint that gentleman's determination of surpassing all others in superior samples of the Indian corn. I shall send you four ears, taken from my crop of 1828. The first of them is 8 inches in length, 8 inches and 1-8th of an inch in circumference at the larger end, and contains 1200 grains. The second ear is in length 9 inches; in circumference at the larger end, 8¼ inches, and contains 1122 grains. The third is in length 9¼ inches; in circumference at the larger end 8¾ inches, and contains 1056. The fourth ear measuring in length 9½ inches; in circumference 9¼ inches, and contains 1014 grains. The length of these ears has been taken so far only as the cob is covered with grains; the cob itself, in each, protruding beyond the grains; and it is somewhat curious that the number of grains increases inversely with the length of the ears. Connected with the production of this corn, are some facts, not unworthy, perhaps, of being noted, inasmuch as they manifest, I think, in a strong light, the importance of good husbandry, and tend also to show that the Indian corn cannot be the great exhauster of land which by many it has long been deemed. The ears of corn above mentioned *are a part of the twelfth successive crop of corn made on the same land.* I pretend to no experience or skill in agriculture, my walk in life having led me to pursuits of a wholly different character. My course of husbandry has, however, been this. About twelve years since I commenced the cultivation of a small farm in this vicinity, consisting (with the exception of a few acres of bottom land, appropriated exclusively to grass,) of high land only. The soil of this farm contains a considerable proportion of sand, and had been much impoverished by the improvident course of tillage, long and generally prevalent in this part of the country. It was what is here usually denominated *old field*, producing chiefly the broom grass and a few dwarf pines; it would not, perhaps, have produced three barrels or fifteen bushels of corn to the acre. I caused this land to be ploughed into beds five and a half feet in width; these were then opened by a single plough, and manure being placed in the opening furrows, the corn was planted therein at the interval of three feet between the stalks. On the succeeding year, manure was applied to the middle spaces between the beds; these last were then reversed with a two horse plough, the beds formed by this operation opened as already described, and the corn planted in the same manner. By this process, the land, whilst yielding an annual crop, has been gradually ameliorated; the stalks of corn have consequently been brought nearer each other, till at length they have been planted at the distance of two feet only apart; and the two last years, 1827-8, the average product gathered from this land has been six barrels or thirty bushels to the acre. An error was at first committed (as must be expected in every novitiate,) by raising, or rather by leaving the beds too high, or convex on the surface; but this was corrected, and they now are reduced nearly to a level in the progress of tillage by the five hoed cultivator, merely leaving a trace as a guide for placing the manure for the succeeding crop. In the course of improvement here delineated, the manure has been almost exclusively supplied by my farm stable, my cow yard (in which every corn stalk, and every other species of litter have been carefully deposited,) and from my stable in town, in which only three horses are kept. But I find myself drawing into a prolix commentary, what was designed to be a simple notice of an instance of luxuriant vegetation. I will therefore conclude with the remark, that taking into view the product of my corn, the regular annual contribution from the land, and the progressive amelioration of the soil, I think I may venture to anticipate your umpirage upon my title to Mr. Upshur's barrel of corn, proffered to the person who shall surpass him. The species of corn described by him I am unacquainted with, or know it not by his description. The ears I shall send you are of a kind called the gourd-seed corn. It is valuable for its increase, for being easily crushed in grinding, and yielding consequently a large proportion of very white meal. One of the ears I shall send has some stains upon it; these have been produced by the following circumstances: after the crop was gathered and thrown into bulk, before being shucked, there came on a long season of warm rain, by which some loss was sustained. By the same cause many ears were discoloured, but a close examination will show that the grains have been perfectly formed and matured.

Yours, very respectfully,

P. V. DANIEL.

(From Loudon's Encyclopædia of Agriculture.)

OF THE WORKING AND MANAGEMENT OF RIDING HORSES.

The working and managing of hackney or riding horses, includes what is required for them as pleasure horses for ordinary airings; and what they require when used for purposes of travelling or long journeyings. It embraces also their stable management in general, with the proper care of horse and stable appointments: all which are usually entrusted to a servant, popularly called a groom, whose qualifications should be moderate size, light weight, activity and courage, joined with extreme mildness and good temper; and above all, a natural love of horses, by which every thing required is done as a pleasure for the animal he loves, and not as a task for those he is indifferent to.

The hackney for gentlemen's airings should be in high condition, because a fine coat is usually thought requisite; and here the groom ought to be diligent, that he may keep up this condition by regularity and dressing, more than by heat, clothing and cordials. Whenever his master does not use his horse, he must not fail to exercise him (but principally by walking,) to keep up his condition, and to keep down useless flesh and swellings of the heels. The horse appointments are to be peculiarly bright and clean. The bridle should be billetted and buckled, that the bits may be removed to clean them without soiling the leather, and which cleaning ought not to be done with rough materials, but fine powder and polishing. On the return from exercise, they should be wiped dry and then oiled.—Two pair of girths should be used, that a clean pair may always be ready, and the same if saddle cloths are used.

The preparation for, and the care of a horse on a journey, involve many particulars which should not escape the eye of the master. The first is, Is the horse in hard travelling condition? Next, Do his appointments all fit, and are they in proper order? The bridle for journeying should always be a double curbed one. The snaffle can be ridden with certainly; but the snaffle cannot do the work of the curb, in staying a horse, in saving him from the ground under stumbling or fatigue; or throwing him on his haunches; or in lightening his mouth. The bridle should not be new, but one to which the horse is accustomed. It is of still more consequence that the saddle be one that the horse has worn before, and that fits him thoroughly. The girths should also be of the best material to prevent accidents; and if the saddle be liable to come forward, however objectionable the appearance, a crupper had better be used. Some days before a long journey is attempted, if the shoes are not in order, shoe the horse; but by no means let it be done as you set off, otherwise having proceeded on the journey a few miles, you find that one foot is pricked, and lameness ensues; or, if this be not the case, one or more shoes pinch, or do not settle to the feet; all which cannot be so well altered as by your own smith.

It is always best to begin a long journey by short stages, which accustoms the horse to continued exertion. This is the more particularly necessary, if he have not been accustomed to travel thus, or if he be not in the best condition. The distance a horse can perform with ease, depends greatly on circumstances. Light carcassed horses, very young ones, and such as are low in flesh, require often baiting, particularly in hot weather: horses in full condition, above their work, and well carcassed, and such as are from seven, or ten, or twelve years old, are better when ridden a stage of fifteen or twenty miles, with a proportionate length of baiting time afterwards, than when baited often, with short stoppages: the state of the weather should also be considered; when it is very hot, the stages should be necessarily shorter.

To a proper consideration of the baiting times on a journey, the physiology of digestion should be studied. Fatigue weakens the stomach. When we ourselves are tired, we seldom have much inclination to eat, and fatigue also prevents activity in the digestive powers. To allay these consequences, ride the horse gently the last two or three miles. If a handful of grass can be got at the road side, it will wonderfully refresh your horse, and not delay you three minutes. In hot weather, let the horse have two or three go downs (gulps,) but not more, of water occasionally as you pass a pond; this tends to prevent excessive fatigue. Occasionally walk yourself up hill, which greatly relieves him, and at which time remove the saddle, by shifting which, only half an inch, you greatly relieve him; and during this time, perhaps he may stale, which also is very refreshing to him. It may be as well, in a flinty country, to take this opportunity of examining that no stones are got into the feet likewise.

When a horse is brought into an inn from his journey, if he be very hot, first let him be allowed time to stale; let his saddle be taken off, and with a sweat knife draw the perspiration away; then, with a rug thrown over him, let him be led out and walked in some sheltered place till cool, by which means he will not afterwards break out into a secondary and hurtful sweat: but by no means let an idle ostler hang him to dry without the stable. Being now dried, remove him to the stable, where, let some good hay, sprinkled with water, be placed before him: if very thirsty, give three or four quarts of water now, and the remainder in half an hour, and then let him be thoroughly dressed, hand-rubbed, foot-picked, and foot-washed; but by no means let him be ridden into water; or, if this practice is customary, and cannot be avoided, let it be not higher than the knees, and afterwards insist on the legs being rubbed perfectly dry; but good hand rubbing and light sponging is better than washing. Having thus made him comfortable, proceed to feed with corn and beans according as he is used.

To feed a horse when very hard ridden, or if weakly and tender, it is often found useful to give bread, or bread with ale: if this be also refused, horn down oatmeal and ale, or gruel and ale. It is of the utmost consequence if the journey is to be of several days continuance, or if it is to consist of a great distance in one or two days, that the baitings are sufficiently long to allow the horse to digest his food: digestion does not begin in less than an hour, and is not completed in less than three; consequently any bait that is less than two hours, fails of its [illegible] a horse rather travels on his former strength than on his renewed strength, and therefore it cannot continue. After a horse is fed he will sometimes lie down; by all means encourage this, and if he is used to do it, get him a retired corner stall for the purpose.

The night baiting of a journeying horse should embrace all the foregoing particulars, with the addition of foot stopping, and care that his stable be of the usual temperature to that to which he is accustomed; and that no wind or rain can come to him: give him now a full supply of water; if he has been at all exposed to cold, mash him, or, if his dung be dried by heat, do the same; otherwise, let a good proportion of oats and beans be his supper, with hay, not to blow on half the night, but enough only to afford nutriment.

When returned home from a journey, if it has been a severe one, let the horse have his fore shoes taken off, and, if possible, remove him to a loose box, with plenty of litter; but if the stones be rough, or the pavement be uneven, put on tips, or merely loosen the nails of those shoes he has on; keep his feet continually moist by a wet cloth, and stop them at night if the shoes be left on; mash him regularly, and if very much fatigued or reduced, let him have malt or carrots, and if possible, turn him out an hour or two in the middle of the day to graze: bleeding or physicking are unnecessary, unless the horse shows signs of fear. If the legs be inclined to swell, bathe them with vinegar and chamber ley, and bandage them up during the day, but not at night, and the horse will soon recover to his former state.

HORTICULTURE.

(From the New England Farmer.)

ON THE CULTURE OF THE VINE.

In February, take a single joint of the vine you choose; cut it off a half inch above the eye, and again at two inches below the eye; cover each end with sticking plaster of any kind, and set it in a pot of garden mould, about five or six inches in diameter, and unglazed. The eye of the cutting must be covered with earth, and then watered to settle the ground: after this lay half an inch of horse manure on the surface to keep it from becoming dry and hard, and place the pot in a hot bed prepared for raising cabbage plants. If more than one shoot rises from the eye, rub off all but the strongest. About the first of June, turn out the vine from the pot, and set it in the garden, or at the east or north end of your house, wherever it can be protected from violence. It will grow in any soil; but like other plants it grows best in the best soil. When first removed, water it at a distance from the plant, so as to draw the earth toward the vine, instead of washing the ground from it. If you water it afterwards, pour your water into a trench at least eighteen inches from the plant; for unless this precaution be used, watering does more harm than good, and does most injury in the driest time. As the vine shoots, it must be prevented from falling. In November, a slight covering of straw is beneficial to prevent freezing and thawing of the vine. In February it must be trimmed by cutting it off at a half an inch above the eye; all the eyes below are to be carefully rubbed off, as being imperfect. The eye thus left will sometimes produce more than one shoot, in which case all but the strongest should be rubbed off. In November, this shoot is again to be covered, and in the following February is to be again cut off above the second lowest clasper: that is, leaving on two eyes to shoot this season, and again rubbing off all the eyes below the lowest clasper. Both these shoots should be permitted to grow their utmost length; which if the soil be favourable will be very considerable, and there will be reason to hope for fruit in the next season. In the third February cutting, three eyes upon each shoot may be left, and no more. From this time forward all the side branches from the shoots of the year are to be rubbed off, taking care not to injure the leaf whence they spring, which is the nurse of the bud at the root of its stem.

At the fourth time of cutting the vine, and from that time forward it may be cut about the last of October; four eyes may then be left; and the fifth cutting, five eyes may be left on each shoot and never more, even in the most vigorous state of growth, for the injuries thereby done to the vine will be seen and lamented in succeeding years.

CULTURE OF THE GRAPE.

The following extract of a letter of a recent date, written by a gentleman who is well qualified to speak upon the subject, shows what may be done in this interesting pursuit, which is now occupying the public attention. The writer resides on the Georgia side of the Savannah river, a few miles above Augusta.

"Send me a quarter cask of Madeira wine. I hope soon to make some of this article for sale.—The vines I got from Adlum, of Georgetown, in 1825, will bear fruit this year; but a small portion of them took root. I have, however, now got near 800 vines growing, and I am increasing the vineyard. In three years, from what already is planted, I expect to make at least 40 pipes, and increase yearly. I have for four years past made a little wine from eleven old vines in the garden, equal to most Madeira imported. None who have tasted it, believed that such wine could be made in America."
[*Charleston Courier.*

Vegetable Curiosity.—At the last meeting of the Ross Horticultural Society, a leaf was exhibited of the Oriental Palm, or Talipot tree, which had been taken from a tree in Ceylon, upwards of 100 feet high, and was presented to the Society by the lady of Gen. Sir Robert Brownrigg. It measured no less than 40 feet in circumference. [*Eng. pap.*

INTERNAL IMPROVEMENT.

RAIL ROAD MEMORIAL.

The following Memorial was presented to the House of Representatives on the 28th December, and referred to the Committee on Roads and Canals.

To the Senate and House of Representatives of the United States in Congress assembled,

The memorial of the President and Directors of the Baltimore and Ohio Rail-road Company,

Respectfully represent:

That your Memorialists are engaged in the construction of a Rail-road, with at least two sets of tracks, from the city of Baltimore to the Ohio river, the entire expense of which, according to the best information founded upon the cost of similar works in Europe, and the experience already acquired here, will not exceed twenty thousand dollars per mile, and will involve a total expenditure of between six and seven millions of dollars. Of this sum, one million of dollars has been subscribed by the State of Maryland and the City of Baltimore, and three millions of dollars have been obtained by individual subscriptions; constituting together, a capital of four millions of dollars.

The entire district between Baltimore and the Ohio river, has been carefully examined by competent officers of the United States' corps of Topographical Engineers, detailed for this service; and it having been most satisfactorily ascertained that the intermediate country affords so great facilities for the construction of the proposed road, as to render its completion not only certainly practicable, but far less difficult than was at first supposed, surveys for the actual location of tho eastern division were accordingly undertaken immediately, and about twenty-five miles of the line aro now under contract, and in a rapid progress of completion.

At the time your memorialists embarked in this enterprise, they did not hesitate to believe that so enlightened a body as the Congress of the United States would fully appreciate the vast importance of the undertaking, whether considered in reference to its social, its commercial, or its political influence upon our country; provision was therefore made in the charter of the company, for receiving a subscription on the part of the United States.

The numerous rail roads which have been constructed in Europe, the immense advantages which have resulted from them, and the progressive extension of them, both in England and on the continent, as well as the efforts to introduce them into different parts of our own country, all assure us of the growing confidence in their value and importance, and indeed leave no doubt of their efficiency in securing a safe, economical, and expeditious intercourse between districts remote from each other, particularly over an undulating and uneven surface.

Believing, as your memorialists do, that every section of our country has a deep and vital interest in this great enterprise, and that the countenance and support of the National Legislature would essentially promote its early and successful completion, they respectfully ask the attention of Congress to the subject, and confidently hope that a subscription on the part of the United States to the stock of the company will be authorized, to such extent as in their wisdom may be deemed for the interest of the nation.

P. E. Thomas, *President.*

Charles Carroll of Carrollton,
William Patterson,
Robert Oliver,
Alexander Brown,
George Hoffman,
Alexander Fridge,
William Lorman,
John B. Morris,
Isaac M'Kim,
Patrick Macaulay,
William Steuart,
Solomon Etting,
Talbot Jones.

LADIES' DEPARTMENT.

(From tho New England Farmer.)

ON THE CULTIVATION OF HYACINTHS, TULIPS, NARCISSUS, &c.

[From Notes taken by an American gentlemao while in Holland.]

The proper soil for bulbs, in general, is a light rich soil, mixed with a considerable portion of fine sand; and the compost generally used, is one-third fine sand, one-sixth rich loom, one third cow dung, aod one-sixth leaves of trees. The two last to be well rotted, and at least two years old; with this mixture, the beds are formed two feet deep, at least, and raised four or six inches above the level of the garden, to turn off raio. The proper time of planting, is in the months of October and November, though it may answer by the first of December—provided the ground remains sufficiently open.

Hyacinths may be set six inches apart from each other, and each bulb placed in fine sand, and covered with it. After the bed is thus planted, cover the whole carefully with earth four inches. When the winter is fairly set in, (say from the 1st to the 10th of December) then cover with leaves, straw, or sea-weed, four or six inches deep, which should be removed early in spring; a part of it perhaps as early as the 20th of February, and the remainder during March. With too much protection, the bulbs draw up weak and pale, and are materially injured. During their bloom, it will be proper to support the bells by small sticks, and protect them from heavy rains and the sun. The flower stems should be cut off as soon as they have faded, and the beds left exposed until the leaves are nearly dried, when the bulbs should be taken up, the leaves cut off half an inch from the top of the bulb, and then replaced (sideways) with the fibres on, and covered with earth, there to dry gradually for a month; when they are to be taken up, cleaned from the earth and fibres, and each bulb wrapped in a separate paper in a dry place, and frequently aired, or to be packed in dry sand. When wanted for the parlour, they should be planted in September, (if to blow early in the winter) in deep narrow pots, six inches in diameter at the top, and about one-third deeper than common flower pots. The soil the same as before mentioned, and the bulb to be just covered by it. They should not be watered from the top, but the pots should stand, twice a week, in saucers filled with water. Let them have as much air and sun as possible, and not suffer them to feel the direct influence of the fire—for heat forces the stem out before the bells have time to form and acquire vigour and beauty. *When the flowers begin to open, give as much water as the earth will imbibe.*

To preserve these bulbs, they should, as soon as the bloom is over, be turned out of the pot with fibres and earth, and put in a prepared bed in the garden, to be treated afterwards as those growing in open ground. By this mode the bulbs will not be materially injured, and will blow well the second year. Whereas those grown on glasses or forced, are seldom good for any thing afterwards.

Single Hyacinths are preferable to most double ones for early flowering in winter; being two or three weeks sooner in bloom. Their colours are more brilliant, and the bells more numerous than the double.

Tulips are hardier than the hyacinth, and in open ground may be planted four inches apart, covered two or three inches with earth.

The Polyanthus Narcissus should be planted six inches deep, and eight inches apart, and carefully protected from frost, being the most tender of the bulbs. Unless taken up after bloom, it will grow in the autumn, and suffer during winter.

Depth and Distances. Hyacinths, amaryllis, martagon, and other large lilies, and pæonies, should be planted at the depth of four inches; crown imperials, and polyanthus narcissus, five inches; tulips, double narcissus, jonquilles, colchicums and snow-flakes, three inches; bulbous irises, crocuses, arums, small fritellarias, tiger flowers, gladiolus, and snow-drops, two inches; ranunculus, anemones, oxalis, and dog's-tooth violets, one inch; always measuring from the top of the bulb. The rows should be about ten inches apart, and the roots be placed from four to six inches apart in the rows, according to their size.

Method to bloom hyacinths and other bulbs in the winter season, in pots or glasses. For this purpose, single hyacinths, and such as are designated earliest among the double, are to be preferred. Single hyacinths are generally held in less estimation than double ones; their colours, however, are more vivid, and their bells, though smaller, are more numerous. Some of the finer sorts are exquisitely beautiful; they are preferable for flowering in winter to most of the double ones, as they bloom two or three weeks earlier, and are very sweet scented. Roman narcissus, double jonquilles, polyanthus narcissus, double narcissus and crocuses, also make a fine appearance in the parlour during the winter. It is a remarkable circumstance of the crocus, that it keeps its petals expanded during a tolerably bright candle or lamplight, in the same way as it does during the light of the sun. If the candle be removed, the crocuses close their petals, as they do in the garden when a cloud obscures the sun; and when the artificial light is restored, they open again, as they do with the return of the direct solar rays.

Hyacinths intended for glasses should be placed in them about the middle of November, the glasses being previously filled with pure water, so that the bottom of the bulb may just touch the water; then place them for the first ten days in a dark room, to promote the shooting of the roots, after which expose them to the light and sun as much as possible. They will blow, however, without any sun; but the colours of the flowers will be inferior. The water should be changed as it becomes impure; draw the roots entirely out of the glasses, rinse off the fibres in clean water, and the glasses well washed inside; care should be taken not to suffer the water to freeze, as it not only bursts the glasses, but often causes the fibres to decay. Whether the water be hard or soft is of no great consequence; but soft or rain water is considered preferable, but it must be perfectly clear. Forced bulbs are seldom good for any thing afterwards.

Nosegays should have the water in which their ends are inserted changed, on the same principle as bulbous roots; and a much faded nosegay, or one dried up, may often be recovered for a time, by covering with a glass bell, or cap, or by substituting warm water for cold.

We are glad that private balls for children are becoming more common. These meetings refine their thoughts and manners; exercise them most advantageously in a salutary accomplishment, and afford them the highest innocent delight. The consideration last mentioned ought ever to have weight; enjoyment should be studiously provided for the season of life in which it has its keenest zest. The true halcyon days are those of well treated children.

"Gay hope is theirs by fancy fed,
Less pleasing when possest;
The tear forgot as soon as shed,
The sunshine of the breast:
Their buxom health of rosy hue,
Wild wit, invention ever new,
And lively cheer of vigour born;
The thoughtless day, the easy night,
The spirits pure, the slombers light,
That fly th' approach of morn." [*Nat. Gaz.*

SPORTING OLIO.

(From a New York Paper.)

A SHORT DEER HUNT.

Every thing which recals to us the contrast between the primitive and present state of our country, is interesting, whether it relate to the Red Man of the forest, who once reared his smoky wigwam where our City Hall and the splendid mansions of our citizens are now found, or the game, which was given by the Great Spirit for his sustenance, instead of the luxurious, but less healthy viands, which load the tables of the great.

Of the Indian, so far as relates to our Atlantic shores, we may say that he is no more. The buffaloe and the bear, the beaver, the panther and the wolf, have followed in his train—and the mammoth is known only by a few memorials, that such were among the wonders of creation.

But the deer forms a rare exception. Among the most timid of the unsheltered tenants of the wilderness, he still hangs upon our outskirts and maintains his ground almost within the sound of our hammers, and the rattling of our coach wheels.

On Christmas day a party of gentlemen of our city, while on an excursion to Sandy Hook, availed themselves of the politeness of Robert Hartshorne, Esq. to take a range upon his hunting grounds at the Highlands of Neversink. Shortly two fine bucks presented themselves. Both were wounded by their shots, and we yesterday had the pleasure of seeing one of them (weighing 172 lbs.) displayed in true sportsmanlike style, at Whitehall, with magnificent antlers, which told that he had led his independent course at least four or five years.

(From the Hunting Directory.)

HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or *Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound.—Of the Size, Colour, and Breeding of Hounds, &c.*

(Continued from page 343.)

As far as relates to speed, the fox-hound may be regarded as perfect; but the same remark will not apply to his olfactory organs, or powers of smell: if the perfection of these two qualities could be united, nothing more could be desired. I am aware that the Talbot, so celebrated for his exquisite sense of smell, was slow in the pursuit; this observation is equally applicable to the southern hound; and the question is, whether or not it would be possible to unite the olfactory organs of the southern hound to that speed and dash which renders fox-hunting so superior to every other species of the chase. That such a desirable object is susceptible of accomplishment, little doubt can be entertained; and indeed, the instance already noticed of Glider and Gaoler, seem to place the matter beyond a doubt.

Of late years, speed has been the principal object of consideration in the breeding of hounds. In 1824, I happened to visit Knowsley, near Liverpool, the residence of the Earl of Derby, where his lordship's hounds are kept in summer. Of course I visited the kennel, when Jonathan, the huntsman, earnestly directed my attention to a bitch, which, he exultingly remarked, could "*run four miles in less time than a greyhound!*"—Lord Derby's hounds exhibit the appearance of fox-hounds, though used for the pursuit of the stag.

At all events, whenever a sportsman determines upon breeding hounds, the individuals selected for the purpose should be distinguished for some good quality, or indeed for as many good qualities as possible. On this subject, I will quote the opinion of Beckford; and also the notions of Somerville:

"Consider," says the former, "the size, shape, colour, constitution, and natural disposition of the dog you breed from; as well as the fineness of his nose; his stoutness, and method of hunting. On no account breed from one that is not *stout*, that is not *tender nosed*, or that is a *skirter*.—Somerville enjoins still further:

"Observe with care his shape, sort, colour, size:
Nor will sagacious huntsmen less regard
His inward habits; the vain babbler shun,
Ever loquacious, ever in the wrong;
His foolish offspring shall offend thy ears
With false alarms, and loud impertinence.
Nor less the shifting cur avoid, that breaks
Illusive from the pack; to the next hedge
Devious he strays, there ev'ry meuse he tries,
If haply then he cross the steaming scent,
Away he flies, vain-glorious; and exults
As of the pack supreme, and in his speed
And strength unrivall'd. Lo! cast far behind
His vex'd associates pant, and lab'ring strain
To climb the steep ascent. Soon as they reach
Th' insulting boaster, his false courage fails,
Behind he lags, doom'd to the fatal noose,
His master's hate, and scorn of all the field.
What can from such be hop'd, but a base brood
Of coward curs, a frantic, vagrant race?"

"It is the judicious cross that makes the complete pack. The faults and imperfections in one breed, may be rectified in another; and if this is properly attended to, I see no reason why the breeding of hounds may not improve, till improvement can go no farther. If ever you find a cross hit, always pursue it. Never put an old dog to an old bitch. Be careful that they are healthy which you breed from, or you are not likely to have a healthy offspring. Should a favourite dog skirt a little, put him to a thorough line-hunting bitch, and such a cross may succeed: my objection to the breeding from such a hound is, that as skirting is what most fox-hounds acquire from practice, you had better not make it natural to them.

"The feeder should watch over the bitches with a cautious eye, and separate such as are going to be proud, before it is too late. The advances they make frequently portend mischief as well as love; and if not prevented in time, will not fail to set the whole kennel together by the ears, and may occasion the death of your best dogs: care only can prevent it.—

Mark well the wanton females of thy pack,
That curl their taper tails, and frisking court
Their pyebald mates enamour'd; their red eyes
Flash fires impure; nor rest, nor food they take,
Goaded by furious love. In sep'rate cells
Confine them now, lest bloody civil wars
Annoy thy peaceful state.——Somervile.

"It is advisable to breed early in the year: January, February and March are the best months.—Late puppies seldom come to much; if there are any such, put them to the best walks. When bitches begin to get big, they should cease to hunt: it frequently proves fatal to the whelps, sometimes to the bitch herself; nor is it safe for them to remain much longer in the kennel. If one bitch has many puppies, more than she can well rear, you may put some of them to another bitch; or if you destroy any of them, you may keep the best-coloured.—They sometimes will have an extraordinary number.

"I have known," says Beckford, "an instance of one having fifteen; and a friend of mine, whose veracity I cannot doubt, has assured me that a hound in his pack brought forth sixteen, all alive. When you breed from a very favourite sort, and can have another bitch warded at the same time, it will be of great service, as you may then save all the puppies. Give particular orders, that the bitches be well fed with flesh; and let the whelps remain till they are well able to take care of themselves.—They will soon learn to lap milk, which will relieve the mother. The bitches, when their whelps are taken away from them, should be physicked; I generally give them three purging balls, one every other morning. If a bitch brings only one or two puppies, and you have another bitch that will take them, by putting the puppies to her, the former will soon be fit to hunt again; she should, however, be physicked first; and if her dugs are anointed with brandy and water, it will also be of service. The distemper makes dreadful havock with whelps at their walks; greatly owing, I believe, to the little care that is taken of them there. I am in doubt whether it might not be better to breed them up yourself, and have a kennel on purpose. You have a large orchard paled in, which would suit them exactly; and what else is wanted might be easily obtained. There is, however, an objection which perhaps may strike you: if the distemper once gets amongst them, they must all have it; yet, notwithstanding *that*, as they will be constantly well fed, and will lie warm, I am confident it would be the saving of many lives. If you should adopt this method, you must remember to use them early to go in couples; and when they get of a proper age, they must be walked out often; for should they remain confined, they would neither have the shape, health, nor understanding they ought to have.—When I kept harriers, I bred up some of the puppies at a distant kennel; but having no servants there to exercise them properly, I found them much inferior to such of their brethren as had the luck to survive the many difficulties and dangers they had undergone at their walks; these were afterwards equal to any thing, and afraid of nothing; while those that had been nursed with so much care, were weakly and timid, and had every disadvantage attending private education.

"I have often heard as an excuse for hounds not hunting a cold scent, that they were *too high bred*. I confess, I know not what that means: but this I know, that hounds are frequently *too ill-bred* to be of any service. It is judgment in the breeder, and patience afterwards in the huntsman, that make them hunt."

(To be continued.)

(From the Goshen, Orange county Patriot, Jan. 5.)

WILD CAT.

On Tuesday morning, 23d December, Mr. Christopher Adams, of the town of Warwick, in the neighbourhood of what is called the Long Pond, having an errand to the east side of the pond, went in a canoe, and Mr. Wygant's two dogs went round the head of the pond by land, and started, as Mr. A. thought, a racoon, by its plunging in the pond not far from him, and making its course across the pond. Upon this he pursued it with his canoe, and commenced an attack upon it with his paddle, until he broke it in pieces; but he might as well have struck upon a sea monster, for, to his astonishment, it was discovered to be a *Wild Cat* of uncommon size, measuring something near four feet in length, and about a foot across the breast. He soon got possession of the canoe, when he commenced springing perpendicularly several feet, with his eyes darting fury, snapping and grinning in a most terrific manner. In this dilemma, Mr. A. resigned his commission to his more powerful competitor, by leaping into the water; with a powerful effort, causing the boat to recede some feet, by which means the cat fell short of his intended grasp in attempting to seize on his supposed victim. Mr. A. finding himself pursued, redoubled his exertions for shore, the infuriated animal in close pursuit; at this awful crisis, he called in a stentorian voice for the dogs, which although on a back track of the animal, were fortunately in hearing in time to rescue him from his impending fate; one seizing him by the ear, the other by the hinder leg, in this manner towing him some rods until they arrived at shore. After which a furious battle ensued, in which the cat would have gained the mastery, but for the assistance of Mr. A. who had by this time succeeded in gaining the shore, although in a situation truly piteous, being benumbed with cold, which rendered his assistance more feeble; but by their united efforts at length despatched him. By this time Mr. A's clothes were congealed upon him, in which situation he had to remain a considerable length of time, before the inhabitants came to his assistance with another boat. Mr. A. took a violent cold, the dogs were slightly wounded; but all in a fair way of recovery.

[Travelling last summer in the stage with an accomplished gentleman of South Carolina, we were exceedingly entertained with his lively and graphic descriptions of rural sports in that state. The manner of hunting and shooting the deer—the chances by which fine dogs sometimes fall a prey to the alligator; and amongst other things we remember him to have related the case of a small pack of hounds in going to cover, encountering unexpectedly a *Wild Cat*, by which the whole pack was in few minutes put *hors du combat*.—Ed.]

MISCELLANEOUS.

DISEASES OF THE TEETH AND GUMS.

Bad teeth are sometimes the effect of (1st) general bad health; but they are more commonly the effect of local causes. One of the most fruitful sources of diseased teeth is (2d) the alternate effect of heat and cold—breathing cold air, drinking hot tea, eating hot victuals, and taking water into the mouth immediately after. In the West-India Islands, where the climate is uniformly warm and the water not cold, the inhabitants are remarkable for their fine teeth, except in the Island of St. Croix, where the water issuing from the sides of the mountains is very cold, and of course a great luxury and much used, the inhabitants have bad teeth. (3d.) Unskilful dentists frequently occasion the destruction of teeth by filing or in other ways destroying the enamel, but more commonly by the use of acid dentrifice washes and powder. These whiten, but wound and create a morbid sensibility in the nerves and corrode the enamel, in both ways ensuring their decay. (4th.) Biting hard substances is extremely hurtful, not from the mechanical injury done to the bone of the teeth, but from its affecting the fine organization of their vessels and producing internal diseases and decay. (5th.) Permitting the teeth and gums to become foul, the accumulated matter growing acrid and corroding the teeth or irritating the nerves. (6th.) Remedies applied for the tooth-ache, such as the metallic salts and the essential oils. (7th.) One diseased tooth, by internal sympathy, or by the deposition of matter externally, injuring others. (8th.) The scurvy; which is occasioned by the irritation of Tartar, which is suffered to accumulate on the teeth. (9th.) By the gums becoming soft and spongy from not being sufficiently rubbed. 10th. Tartar is produced by the neglect of cleaning the mouth.—These are some of the principal causes of diseased teeth. Good teeth contribute to beauty; to health, by enabling us to masticate our food well; and to pleasure, for a person whose mouth is filled with decaying bones, must be disagreeable to himself and others. Avoiding the causes will do much. A few preventive and curative remedies will be mentioned:

1. The mouth ought to be rinsed, and the gums and tongue rubbed with a brush early in the morning, to remove the accumulation of the preceding night. 2. The mouth should in the same manner be washed after meals *with water not cold*, and all extraneous matter removed from between the teeth *by a pick not made of metal*. 3. To ease the pain of a decayed tooth, the best remedy is powdered camphor, introduced into the cavity on the point of a tooth pick, and secured by putting raw cotton over it. The tooth must be made clean, so that the camphor can come in contact with the diseased nerve, and the camphor must lie so lightly on it as not to produce pain by its pressure. This will relieve the pain, correct the fetor of the decaying tooth, and do no injury to the sound teeth, whereas oil of cloves or cajuput are less certain to give relief, and always do mischief by roughening the other teeth, and favouring the accumulation of tartar. 4. Tartar is produced by the neglect of washing and cleaning the mouth. Where the teeth are naturally smooth and the gums sound, mastication alone is often sufficient to prevent the accumulation of tartar; but if from tooth ache or other cause, the teeth of one side are not used, tartar will collect without the greatest care. This substance injures the teeth by its direct effect upon them, and by its irritating the gums, and producing scurvy. It may be prevented by washing the mouth often or picking the teeth with a pin of dry wood. If these are not sufficient, and powders are necessary, beware of those which have a rough grit, or acids in them. The best tooth powder is finely levigated charcoal. The best brush to apply it with, is a small stick of the althea shrub, made into a small broom at the end by biting it between the teeth, but better than this to rub between the teeth is a piece of seasoned oak wood, made pointed and broomed by biting it. If, however, the tartar has been long fixed, and adheres firmly, it will be necessary to remove it by instruments. The point of a penknife will for the most part be sufficient, but the process will be aided by a small sharp hook, which scraping towards the end of the teeth are less liable to injure the gums. 5. The scurvy is cured by removing the tartar, by rubbing the gums with what is called a tooth brush, but which more properly might be called gum brush. The powder of peruvian bark is excellent to rub into the gums; it should be kept between the cheeks and teeth, and the gums should also be washed with a decoction of it. If the scurvy is bad and has continued long, the whole system becomes tainted with it. In this case, or if the system is feverish, it will be necessary to take half an ounce of bark, and 60 or 70 drops of elixir vitriol daily. If it is objected that the gums are too tender to permit the use of the brush, this is an evidence that it is needed. A brush and tumbler of water *not cold*, or suds of old Windsor soap, if assiduously used, will, for the most part, keep the gums hard. If, however, the gums show a disposition to become soft and spungy, bark may be used as a preventive.

A poor simple Highlander, who last week made his appearance at Stirling store, and purchased a cart of lime, met with an adventure sufficiently untoward and provoking, but fortunately nowise disastrous. Donald had no sooner got his cart well filled than he turned his own and his horse's head to his dear Highland hills. He had not, however, got far beyond Stirling bridge, when a short shower of rain came on. The lime began to smoke. Donald, supposing it to be nothing more than a whiff of mountain mist, proceeded on his way, regardless of the descending torrent; ever and anon bestowing a smart whack on the bony posteriors of of his Rosinante, to quicken her pace. At length Donald became enveloped in a cloud; and no longer able to see his way before him, he bethought him it was time to cast a look behind, and was not a little amazed to discover that the whole cause of annoyance proceeded from his cart of lime. It was on fire—but how, was beyond his comprehension. He stopt his horse and stood still, in hopes that the rain would quench the intruding element. Remarking, to his astonishment, that this was only adding fuel to the flame; he actually drove the cart to a stream at a short distance, and, taking his spade, began busily to shovel the water on the smoking load. This speedily brought Donald's difficulties to a crisis: for his steed, unaccustomed to the heat, which threatened to divest him of his tail, began now to exhibit tokens of open rebellion. Besides, seeing his cart was in danger of being burnt to a cinder, and not knowing but the horse might take it into his head to commence burning too, he was resolved the bewitched load and "puir beast and braw bit cart" should instantly be disunited. He accordingly unyoked the impatient animal, and immediately hurled the smoking lime into the stream, triumphantly exclaiming as the hissing mass yielded to the overpowering element "the de'il's in her if she'll burn now."

[*Stirling Advertiser.*

KITCHEN ECONOMY.

A friend has mentioned to us an improvement in kitchen economy which we think deserving of notice. It may be called an *iron back log*, and is cast hollow, to contain water. A small leaden leader is attached to this iron cylinder, which is placed at the bottom of a wood fire, and connected with a cask or tub of water near the fire place, or in any convenient part of the room. The family may thus have a constant supply of hot water, without encumbering the fire place, and with much less than the ordinary consumption of fuel for that purpose.

[*Long Island Star.*

The Spider.—Of all the insect tribes, this is assuredly the most curious. First, the Barbary spider, which is as large as a man's thumb. This singular creature carries its offspring in a bag like a gipsy. During their nonage the young folks reside there altogether, coming out occasionally for recreation. In requital for this kindness on the part of their nurse, the young spiders, when they are full grown, become mortal foes to their parent, attack her with violence, and if they are conquerors, dispose of the body as a fit subject for their next meal. Then there is the American spider, covered all over with hair, which is so large as to be able to destroy small birds, and afterwards devour them; and also the common spider, whose body looks like a couple of peninsulas with a small isthmus (its back) between. Europe furnishes two instances of the existence of spiders, which may justly compete with those described by our transatlantic brethren. It is said that the sexton of the St. Eustace, at Paris, was surprised at very often discovering a certain lamp extinct in the morning. The oil appeared regularly consumed. He sat up several nights in order to discover the cause of its mysterious disappearance; at last he saw a spider of vast size come down the chain or cord, and drink up all the oil. A spider of enormous dimensions was also seen in the year 1751, in the cathedral church at Milan. It was observed to feed on the oil of the lamp. It was killed, when it weighed four pounds! and afterwards sent to the Imperial Museum at Vienna.

(From late English Papers.)

It is said in a letter from Paris, that much encouragement is given to the following *new* invention for heating rooms. "A piece of quick lime dipped into water, and shut hermetically into a box constructed for the purpose, gives almost a purgatory heat, and prevents the necessity of fire during the winter!"

Two very celebrated French naturalists, M M. Bloch and La Cepede, are of opinion that such fish as the mackerel, herring, &c, never leave their respective seas, as is commonly believed, but merely quit the vicinity of the shores at the approach of winter, and lie amongst the mud, at the bottom of the deep water, till revived by the warmth of the ensuing spring.

M. Kessels, naturalist at Gand, has just enriched the Cabinet of Natural History there, with the skeleton of an enormous whale. This specimen is 95 feet long, by 15 feet high. When dissected, 20,000 kilogrammes of blubber, and 63,000 kilogrammes of flesh were cut away. M. Kessels has succeeded in preserving the tail, with the skin, blubber, and flesh undisturbed; it is 22 feet round the edge. In the opinion of many naturalists, amongst whom is M. Cuvier, this fish could no have been less than 900 or 1000 years old.

[*Furet de Londres.*

TURKIES.—We have been informed that a young gentleman, of Petersburg, in this county, has collected, and is now on his way to Pittsburgh, with a drove consisting of one thousand turkies.

[*Columbiana (Ohio) Am.*

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 16, 1829.

☞ RAPE SEED OIL.—A correspondent at Cincinnati, Ohio, requests information concerning rape seed oil—whether it will burn in lamps—whether the seed can be raised with ease, as also the quantity generally produced per acre, and the usual quantity of oil per bushel. It is a matter of importance, he says, to that portion of our country, to find a substitute for sperm oil, that can be grown from its own soil.

We shall be much obliged to any of our friends for information on this subject. In the mean time we will recur to a letter from Com. James Barron, read before the Agricultural Society of Albemarle county, Va. October 10, 1820, and published in the 35th number, volume 2, of the American Farmer, relative to the culture of rape seed near Hamburg, in Europe. In this letter Com. Barron says the rape seed is sown, reaped, and treated in all respects so nearly like wheat, both as to time and manner, that it is unnecessary to give any directions relative to it different from that grain. It requires rich land, and that which is low is generally found to be the best. The produce is about 100 bushels to the acre, one-third of which is oil. It crushes very easily, and the cake is probably the best manure in the world. The seed generally weighs 50 lbs. to the bushel. The Commodore thinks that land on which five barrels of corn will grow to the thousand, will produce 100 bushels of this seed to the acre. There are two kinds of rape seed, both of which may be had of Messrs Sinclair & Moore, the one at 15 cts. per lb. the other at 50 cents per lb. the first of which is supposed to be good enough for oil. From two to four lbs. is the quantity generally sown upon an acre.

☞ The editor of the Delaware Advertiser, with a view to the improvement of the agricultural interest in Delaware, offers a gold medal, valued at twenty dollars, a silver tankard of the same value, or twenty dollars in cash, at the option of the successful competitor, to any farmer who is or shall become a subscriber to the Advertiser, who shall next season raise the greatest quantity of merchantable corn from one acre of land.

☞ SPEED OF AMERICAN STEAM BOATS.—Professor Renwick, of New York, addressed to Capt. Edward Sabine, of the Royal army, a letter on the subject of steam boat navigation on the Hudson. The letter has been published in London and republished in the New York Evening Post. In regard to the celebrated boat, the North America, Mr Renwick states—

"In order to give you a proper idea of the velocity of the North America, some other circumstances require to be stated. The distance from New York to Albany has usually been estimated at 160 miles; the post road between the two places is a little less than this, as has been found by a recent measurement performed by the post office department. It is, however, alleged, that the course of the river is not so much, and the Surveyor-general of our state has recently published a statement of actual surveys on the river, that reduce it to less than 150. These, however, are the shortest possible lines that can be drawn from point to point over the several reaches. As steam boats cannot follow these lines, but frequently cross the river to stop at landings, I cannot consider the actual distance at less than the first estimate; I shall, however, assume it to be 154 miles. The average passages of the North America for the last year, including stoppages, were performed in less than twelve hours; on one occasion in little more than ten. The delay at nine stated landings cannot be taken at less than an hour, which leaves eleven hours for a distance of 154 miles, or fourteen miles per hour. As this average is taken from passages both up and down the river, any difference arising from the different rate of the flood and ebb tides, which at some seasons is perceptible, and any effect of current whatever, may be left out of view, and fourteen miles per hour be taken as her average speed through the water."

☞ STILL WITHOUT NEWS FROM EUROPE.—It is now, says the New York Commercial, sixty-five days since the date of our last European advices, and all are inquiring what has become of the packets? The Russian and Turkish war is half forgotten, and the localities of Varna and Choumla but indistinctly remembered. The weather is severe, and it is probable that some of the packets, or other ships, may be on the coast, in distress, having been two months out. We fear they must be short of provisions, and probably of fuel also. Why are not relief vessels sent out? The Bostonians have despatched vessels to look out.

We learn from the New York Daily Advertiser, that the following packet ships are now due, allowing the last named, the John Jay, a passage of 34 days.

From Liverpool—ship Wm. Thompson; day of sailing 16th November; New England, 29th; Geo. Canning, 24th; Caledonia, 1st December; London, 5th do.; John Jay, 8th do.

From London—Robert Edwards, 10th November; Columbia, 25th do.

From Havre—Charles Carroll, 15th November; Montano, do. do.; Charlemagne, 1st December—total 11.

The following packet ships are now on their passages to New York: From Liverpool, Wm. Thompson; New England; George Canning; Caledonia; London; John Jay; Canada; Napoleon; Florida; Birmingham—10. From London, Robt. Edwards; Columbia; Corinthian, and one other—4. From Havre, Charles Carroll; Montano; Charlemagne; Henry IV.; France; and Don Quixotte—6. Total, 20 packet ships, independent of a great number of transient ships.

The average passage, in the last ten years, of our packet ships from Liverpool to New York is about 28 days; and from New York to Liverpool 24. In the months of November, December, and January, the average passage of packet ships from Liverpool to New York, has been a little over 42 days. In the same period, of the old line ships, only two passages from Liverpool to New York have been as long as 61, one of 65, one of 60, and one of 71 days.

All the vessels that have recently arrived from Europe have had very long passages. Several vessels have been between 30 and 48 days in getting into Eastern ports, after making soundings on the Grand Banks. We should not be surprised if half a dozen packet ships should enter our port together the first fair wind.

ERRATA.—In the communication of A. Upshur, (No. 42, vol. 10, p. 331,) for hore, read *borne*—for fruitification, read *fructification*—for purposes, read *purpose.*

TENANT WANTED.

There is wanted upon a Farm in Ohio, a tenant without much capital, except honesty and industry. The proprietor, although he does not reside upon it, intends to attend principally to the cultivation of it himself, leaving for the tenant so much as would employ himself. A German would be preferred, and such an one with small means, would find an advantageous situation during life, if he saw proper. A particular account has been left with the editor of this paper, to whom, or to the Hon. Wm. McLean, member of Congress from Ohio, reference may be made.

Ohio, 29th Dec. 1828.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

TOBACCO.--Maryland, Scrubs, ground leafs, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—yellow, 10.00 *a* 16.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

FLOUR—white wheat family, $9.50 *a* 10.00—superfine Howard-st. (sales) 8.25; city mills, (sales) 8.00; Susquehanna, 8.00—CORN MEAL, per bbl. 2.75—GRAIN, best red wheat, 1.65 *a* 1.70—best white wheat, 1.70 *a* 1.75—ordinery to good, 1.40 *a* 1.56--CORN, old, .48—new corn, .46 *a* .48—in ear, per bbl. 2.25—RYE, bush. .50 *a* .55—OATS bush. .26 *a* .28—BEANS 1.25—PEAS .55 *a* .60—CLOVER SEED, 5.00, brisk—TIMOTHY, 1.50 *a* 1.75—ORCHARD GRASS 1.25 *a* 1.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—BARLEY, .55 *a* 60—FLAXSEED, 1.00—COTTON, Virginia, .10 *a* .11—Lou. .13—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—WHISKEY, hhds. 1st pf. .24—in hbls. .25 *a* 25½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.37½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

MARKETING—Apples, pr. bush. 1.00 *a* 1.50; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .16; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, dozen, 2.50 *a* 3.00; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .10; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, 1.00, Pork, 4.00 *a* 4.50 per cwt.; prime Beef, 5.50 *a* 6.00.

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AGRICULTURE.

THE CULTURE OF THE SUGAR CANE.

By Thomas Spalding, Esq.

Having now been engaged twenty years in the owth of the sugar cane, I have marked, of course, rough the various occasions of that eventful pe- d, many things that it might be well for the ung planter to know, but which it is difficult to tail. In the general, no information that is bene- ial can be derived from the West Indies; their il, their climate, their habits, are all foreign to . The six months that nature has given to them r the preparation and manufacture of their sugar, s shed over the whole economy of their esta- ishments a slowness of movement, that neither longs to our people or our climate. It is in Lou- iana alone, that real and beneficial information n be obtained upon the subject of sugar. It is ere, where frost is treading upon the heels of the ltivator, and forbidding him to sleep or to slum- r, until his work is accomplished, that we may arn what to do, and how to do it. The success the sugar growers of Louisiana, is generally at- ibuted to the soil. I have been there: their soil, I elieve, is in no degree superior to our own; their imate, I am satisfied, is much worse. When I as in Louisiana, there was not an orange tree in e state, bearing fruit; they have been destroyed wice within the limits of my own information, to e very root, to wit: in the winters of 1796-7 and 822. They have not been destroyed in Georgia o the root, since the first settlement made by Ogle- horpe.

In Louisiana, they are obliged to retain one- ixth of all their cane for replanting, and to have hat portion carefully put up into matrasses before he first day of November, or one cold night de- troys the hopes of the next year: and yet they have abandoned, in a great measure, all but the hardiest description of cane, the Creole cane of the West Indies. Otaheite, or Green cane, they rarely venture upon here. They have but one de- scription of soil, the alluvions of the river; and these are stiff and cold. Here we have a variety of soil, adapted in some degree to the various descriptions of cane; and the only subject of our inquiry should be, what soil, within our reach, is best adapted to give us a moderate but certain return for our labour. And on this point I have no question but that light soils, which are noticed to be quick and kindly in their production, and which are not too much elevated, will prove the best. In fact, any land that in the beginning will produce a moderate crop, will be improved by the cultivation of cane upon it, so great is the residuum that the crop leaves behind it; understanding distinctly, however, that the cane is to be alternated with either cotton or potatoes, or some other plant wih large leaves and strong roots. Plants of this character, are in their nature the opposites of the cane plant; they penetrate and loosen the soil; the cane, by its roots upon the surface, bind and stiffen it. This, with me, is not theory, but the result of twelve years experience Another benefit arising from the cultivation of light sandy soils is, that frosts, at the approach of winter, are more temperate, and that moderate frost improves the juices of the cane, while the cold, when more severe, congeals those juices, and in the act of freezing the rind of the cane is rent, and the juices are evaporated and weakened. The alluvion soils of the river, or the lower grounds upon creeks, will no doubt poduce a much superior growth of cane; from which, however, it is more difficult to make sugar, and the sugar of which is always inferior. In fine, every day's experience satisfied me, that lighter soil will, in the end, be more profitable, while they are certainly cultivated with less labour to men and animals than those of a heavier quality. If, however, river lands, or low lands of any description are selected, upon such I would unquestionably cultivate the ribbon cane; because, on these soils, the juices are more abundant than upon lighter lands, which removes one of the material objections to this cane, and its ripening in the month of October enables the cultivator to get off a greater portion of his crop.

In Louisiana, every where the cane is cultivated with the plough. Three furrows are thrown together at from five feet distance, when a slight trench is opened in the middle, and the cane is thrown in, in a continued string; sometimes two of them.—When the cane is about to be placed in the trench, it should be cut into two pieces, to prevent the extremities rising with the warmth of the sun, and deranging the young roots in the spring. The time of planting extends from the 15th of October to the 1st of March. The fall of the year is best, if you have leisure for the operation. Every cane that is cut sound in the fall of the year, will vegetate in the spring. In Louisiana, they cultivate from four to five acres to the labourer; that is beyond what I should even hope, it is beyond what I should ever desire. Two acres of cane and two acres of cotton (Sea Island,) may with diligence be accomplished. It is enough, and the division of crop will facilitate every operation, either of cultivation or preparation for market. By the first of October the ribbon cane, and by the first of November, generally, the green cane is ripe enough to make sugar. But how is this to be tested? The eye and the taste may, to the experienced man, convey some information; to the inexperienced, none. But, happily, there is a small instrument, of little cost and of great simplicity in its use, which measures with as much distinctness the quality of sweets contained in the juice of the cane, as a scale measures the weight of ponderous bodies. It is an hydrometer, (its cost in New York $1,) a glass tube with quicksilver in it; it is graduated from water (the unit,) to the heavier syrups (40;) with clear water, the tube sinks to the cypher; and when the juice of the cane will make sugar, it rises to seven. Below this it will require a quart of lime to make it granulate. When the instrument indicates eight, as the weight of the juice, a pint of lime to a hundred gallons is enough; at nine, half the quantity will be sufficient. In the West Indies they employ hot clarifiers; that is, copper vessels gently heated, into which they put the lime with the liquor; and when all the mucilaginous matter has risen to the surface, under the influence of this gentle heat, they draw, by a cock, into the largest boiler, the clarified liquor.—Here we use wooden vessels, of the size of our first boiler, having generally two of them, into which they put the lime with the juice, when, after standing half an hour, the mucilage and fecula will subside to the bottom, and the liquor having become transparent and something of a bottle green hue, it is drawn into the boiler. These clarifiers stand in my mill house. In Louisiana they lime in the kettles, and depend upon extra skimming; this lessens the trouble of the superintendent, but increases the labour of the skimmers. Upon the subject of boiling, precept is not of any availment: experience is the only instructor, and the eye and the touch, heretofore the only guides, and these by no means correct ones, enveloped as the attendants are, in the clouds of steam, and oppressed with sleep.—Happily, however, the refiners have lately brought science to their aid; they have found that the thermometer will guide the superintendent to the point which concludes his labour, and as her walk is a measured one, and as her indications are uniform, by means of this instrument, which is not costly, (eight dollars in New York,) every kettle of sugar, while the juices are of the same weight, will be of the same quality.

It must be understood that water boils at 212° of Fahrenheit's thermometer; you can never increase this heat; it is a little hotter a moment before its ebulition than it can ever be made afterwards; as a basin of water contains, before it runs over, something more than it can be made to contain after its unity of surface is broken. The power in fluids to retain heat, is in proportion to the substances that are contained in them; and as you disperse in steam the aqueous matter of such fluids, you increase the quantity of heat they are capable of carrying.—The thermometer, in marking the degree of heat in the fluid, indicates distinctly the quantity of any substance contained in it. It is on the observation of the phenomena produced by this law, that you arrive at the point you aim at. When the cane juice is reduced by evaporation until it becomes sugar, by growing cold, and when that sugar is of the quality you desire it, you mark upon your thermometer the degree of heat it carried in the boiler at the moment you damped your fire and began to empty your kettle. This line once determined, your principal attendant has only to watch his thermometer attentively, at the close of every operation. At Sapelo, during this season, our juice has ranged between nine and ten of the hydrometer, and we have boiled our sugar up to 253 and 254 of the thermometer.

These details place sugar-boiling upon a ground of security they had not heretofore arrived at. And here, with a few general observations, I will conclude this communication.

The cultivation of sugar cane is attended with about the same labour that is required in the cultivation of cotton, where the cotton is planted in drills and ridges. It is more difficult to plant than cotton, but once planted, there is no more anxiety; you neither dread worm or frost, nor cold winds; and you have five months instead of thirty days to complete your operation in.

In reaping and preparing for market, the labour is heavy; but it takes the character of the vintage season of wine countries—it is a time of gladness, though of labour.

In all the operations that arise out of the cultivation of cane, the ox appears to be the best companion of man; he turns the best furrow in the field; he is the most docile and obedient in the mill; though he moves slow, he moves sure against any resistance, however great, that is made to him.

In situations where boilers can be procured in a day or two, it is a matter of indifference whether iron or copper is used; but in a country where a broken boiler cannot be replaced but after a long delay, copper should always be preferred. The copper, however, of the boiler, should never be thick. Count Rumford has told us, and experience confirms the declaration, that thin coppers out-last thick ones. The reason is, the heat passes *through* thin copper into the fluid before it has time to calcine its external surface. Thin copper boilers will cost even less than iron, while they are more secure against accidents; but they require more attention to cleanliness.

Whenever there is difficulty in making sugar, the cane should be reduced in the length, that is brought to the mill. One or two green joints at the end of the cane, will materially injure the quality of the sugar, and increase the difficulty of the process in making.

(From the Savannah Georgian.)

GEORGIA SUGAR.

We have received, through a friend residing on St. Simon's Island, three samples of sugar from the plantation of Captain Stockton, which is located near the head of Turtle river. He turns out from two and a half to three hogsheads a day, and therefore manufactures of the article, more of it, and faster than he can either find boxes to put it in, or vessels to carry the produce away.

We find some little difference of opinion among our friends in regard to the relative quality of those specimens from Sapelo, heretofore left at our office, and those which came yesterday to hand from the Buffalo. The public are therefore invited to call at the news room attached to this office, and examine the matter for themselves. Both Mr. Spalding and Capt. Stockton, we believe, however, incline to a preference of the process recently discovered by Major McIntosh of this state, over the French mode; and all their samples, it is universally conceded, are equal to any that ever have been brought from New Orleans or from the West Indies, *pari passu.*

Those from McIntosh county having already been distinguished, we will, at this time, refer to the ones from Glynn, in the order in which they are arranged.

No. 1, twelve days draining.
No. 2, three do. do.
No. 3, taken out of the cooler, without draining.

MUSKINGUM AGRICULTURAL AND MANUFACTURING SOCIETY.

[The annual meeting of this Society was held at Zanesville, Ohio, on the 1st of October last. We have been politely favoured with a copy of the record of its proceedings, and the excellent address of the President, John Dillon, Esq. This latter production we had intended to republish, or make copious extracts from; but it has been mislaid.—Among other spirited proceedings the society adopted the following resolution, which is worth not only the commendation, but imitation of every agricultural society in the Union:]

"*Resolved,* That a committee of five members be appointed to take into consideration, and report at the next stated meeting of the Society, upon the expediency of purchasing, or otherwise obtaining a farm for a term of years, to be exclusively appropriated, under the direction of the society, to experiments in agriculture, horticulture and shrubbery; and that they also report an estimate of the amount of funds necessary to obtain said farm, and the requisite stock and implements to carry on and conduct the same to advantage. Whereupon the following members were appointed said committee, viz: Isaac Van Horne, Appleton Downer, Isaac Dillon, Alexander Harper, and Milton B. Cushing."

[From the proceedings of the Trustees, relative to premiums for different articles of agricultural and manufacturing productions exhibited on the occasion, we extract the following on the cultivation of the mulberry and silk. There can now be no doubt that the silk culture has been commenced in the United States with a spirit, and under auspices that will in a few years render us independent of foreign nations for this most elegant and precious article of dress; and this, too, with little additional expense to the producers.]

Extract from the Minutes.

The Committee on articles of agricultural growth and raw material, Report:

That owing to the unfavourable state of the weather, the number of articles submitted to their inspection was very limited, consisting of a specimen of the genuine white mulberry, of very flourishing growth, for feeding the silk worm, produced this season from the seed, by Mr. David Chambers, of Muskingum county; specimens of silk from the common mulberry, exhibited by Mr. Seth Adams, of Zanesville; and an uncommonly large *winter* water melon, weighing 38 pounds, and which does not come to maturity until the winter season, raised and presented by Mr. Jeremiah Ford, of West Zanesville.

In relation to the silk, which is an important and new article in our country, your committee think Mr. Adams and family entitled to much credit for thus having successfully commenced the growth and manufacture of this useful and elegant product, and they entertain no doubt but that, with proper attention and perseverance, the day is not far distant when Ohio, disdaining foreign supply, may clothe her fair daughters in silk of native production.

'Tis then, indeed, they will deservedly be doubly endeared and interesting to the other sex; as it *must be* to their exertions and patriotism that the nation will be indebted for its wealth obtained from this article. Although many may deem it a peurile effort, and smile at the idea of enriching a country by the labours of a little insect, the silk worm, yet your committee feel confident this may be done, and that ultimate success awaits those who may undertake it, with judicious management. As confirmatory of this opinion, they have only to refer to an official report made to Congress during its last session, by which it appears that two small counties in the state of Connecticut, (where the growth of silk is yet in its infancy,) produce annually from 25 to $35,000 worth of this article; and history informs us, that France dates her prosperity, wealth and greatness, from the era when she commenced the production and manufacture of silk; which now amounts annually to many millions of dollars. Under these circumstances, why may not Ohio become a silk growing and vine producing state. Nature has given her a soil, a climate, and every thing necessary to render her wealthy and great in this respect. Her daughters are industrious, patriotic and enterprising; let them but turn their attention to the growth of silk, and in addition thereto they will be truly independent. For confident we are, that nothing is wanting but attention to, and perseverance in the pursuit, to obtain the most favourable results.

The silk exhibited by Mr. Adams, consisted of sewing silk twisted, of their natural colours, white and yellow, of a texture beautifully fine; also some untwisted thread, as reeled from the cocoons, and a quantity of floss silk, which can be manufactured by carding, (as wool or cotton,) taken from the cocoons. Many cocoons were also exhibited, with and without the floss.

Your committee, in conclusion, would recommend to the society, the encouragement of the growth of silk, by such means as it may deem most efficient.

All which is respectfully submitted.

LEVI WHIPPLE, *Chairman.*

(From Loudon's Encyclopædia of Agriculture.)

OF HORSES IN CURRICLES AND COACHES.

In working and managing horses in curricles, two wheel chaises, and similar cases, great feeling and nicety is required, not to overload or overdrive the animal; to see that the weight is duly proportioned between the wheels and horse's back, and that the harness does not pinch; but no directions on this head can be of much use, unless the driver be a humane and considerate person, and one who sets a just value on the services of the noble animal committed to him. In Russia, the drivers of two wheel carriages, as droscheys, sleriges, and others, corresponding to our gigs and curricles, have a barbarous custom of teaching the horses to turn round their heads, the one to the left, and the other to the right, the sight of which is very offensive to a stranger.

In working and managing coach horses, the same attention to grooming in all its departments is required as for saddle horses. Coach horses should never be brought into full work before they are five years old: when well fed on hard food they may be worked at an average of thirty miles a day at twice. In general they should not be longer than five or six hours in the yoke at a time. Their principal meals should be in the morning and after their work is over for the day, as the action of trotting fast materially impedes digestion.

WORKING OF CART, WAGON, AND FARM HORSES.

In working and managing cart and wagon horses, a similar attention is requisite as for coach horses, though perhaps in a somewhat less degree, the animal being hardier.

The working and managing farm horses includes the age at which they are put to work, the quantity of work they should perform, and their feeding and general management.

The age at which horses are put to full work, in the labors of a farm, is usually when four or five years old, according to the nature of the soil, and the numbers of the team; but they are always understood to be able to pay for their maintenance after they are three years old, by occasional work in ploughing and harrowing. Brown thinks it probable they might be put to work at four years old, were the same attention paid to their breeding and rearing that is paid to cattle and sheep.

The work which a farm horse ought to perform is evidently a question of circumstances, which does not admit of any precise solution, a two-horse plough may, on an average, work about an English acre a day throughout the year; and, in general, according to the nature of the soil, and the labor that has been previously bestowed on it, a pair of horses, in ploughing, may travel daily from ten to fifteen miles, overcoming a degree of resistance equal to from four to ten hundred weight. On a well made road, the same horses will draw about a ton in a two wheeled cart for twenty or twenty-five miles every day; and one of the better sort, in the slow movement of the carrier or wagoner, commonly draws this weight by himself on the best turnpike roads. In some places horses are in the yoke, when the length of the day permits, nine hours, and in others ten hours a day, but for three or four months in winter, only from five to eight hours. In the former season they are allowed to feed and rest two hours from mid-day, and in the latter they have a little corn on the field, when working as long as there is day light, but none if they work only five or six hours. (*Sup. Enc. Brit.* art. *Agr.*)

The feeding of farm horses, is a subject of great agricultural importance; and has excited considerable discussion among speculative agriculturists, who have generally urged the great expenses attending it as an argument against horses, in favour of oxen. Others, without preferring oxen to horses, have, instead of corn and hay, proposed to feed them on roots, leaves, whins, and even haws from the hedges. The later have been given in large quantities by West, of Hampshire, and it is said (*Complete Farmer,* art. *Team,*) were found to answer. That horses as well as men may live on very inferior food is evident; but that either will be able to perform their work under such treatment, as well as if they were properly nourished, is contrary to reason and experience. It is observed by the judicious writer so often quoted, that horses can never perform their labor according to the present courses of husbandry, on carrots, turnips, potatoes, or other roots alone, or as their chief food. They will work and thrive on such food, but they will work as much more, and thrive as much better with oats or beans in addition, as fully to repay the difference in expense. One of the three meals a day, which farm horses usually receive, may consist of roots; and a few of them, every twenty-four hours, are highly conducive to the health of the animals; but we have never had occasion to see any horse work regularly throughout the year, in the way they are usually worked in the best cultivated districts, without an allowance of at least an English peck of oats, or mixed oats and beans, daily, less or more at particular periods, but rather more than this quantity for at least nine months in the year.

Brown does not approve of giving much grain to young horses, thinking it expensive, and not so conducive to their health as when they are supported on green food. In the winter and spring months, a few turnips are eminently beneficial to young horses, by keeping their blood in good order, swelling their bone, and hastening their growth. A plentiful supply of grass in summer ought always to be allowed, as their condition through the winter depends greatly upon that circumstance. It is an object deserving of attention, that flesh once gained ought never to be lost, but that every animal whatever should be kept in a progressive state of improvement, and not suffered to take a retrograde course, which afterwards must be made up by extra feeding, or a loss be sustained, in a direct proportion to the degree of retrogradation that has actually occurred.

The leanness of a farmer's working cattle, and their reluctant movements under this severe stimulus, clearly marks his unprosperous condition. There are particular operations, indeed, such as turnip-sowing, seeding, fallows, harvest work, &c. which require to be executed with so great dispatch, in our variable climate, that unusual exertions are often indispensable. At these times, it is hardly possible, by the richest food and the most careful treatment, to prevent the animals from loosing flesh, sometimes even when their spirit and vigor are not perceptibly impaired. Such labors, however, do not continue long, and should always be followed by a corresponding period of indulgence. It is particularly dangerous and unprofitable to begin the spring labor with horses worn down by bad treatment during winter.

Donaldson observes, that the coarse garbage with which farm horses are commonly stuffed, profitably or otherwise, is the real cause of the frequent occurrence among them of blindness, grease, and colic; more particularly the last, which, with care, might be prevented from happening so frequently. The remedy lies in physic, once or twice a-year; either the regular aloetic dose, or salts given in pails of warm water, or sulphur and cream of tartar; one third of the latter mixed in the corn. All horses kept in the stable become, more or less, internally loaded; and it is an error, to suppose cart-horses are not equally benefitted with others by purging physic.

The cleaning and dressing of farm horses was formerly very little attended to; but at present its importance to the health of the animal is better understood. Donaldson recommends that the heels, legs, bend of the knee, and hock, the twist under the flanks; in short, all parts out of sight, of cart-horses, whilst standing in the house, should be kept perfectly free from dirt and scurf, and the skin supple; the parts more in sight will take care of themselves. In a deep country, it is much the better practice, notwithstanding the prejudice to the contrary, to trim their legs coach-horse fashion. It is now well understood, the editor of the Farmer's Magazine observes, that the liberal use of the brush and the curry-comb twice a day; frequent but moderate meals, consisting of a due proportion of succulent, joined to more solid food; abundance of fresh litter, and great attention to method and cleanliness, are as indispensable in the stable of a farmer (as far as is consistent with a just regard to economy,) as they have always been held to be in the treatment of horses kept for pleasure. Good dressing, with all well informed and attentive men, is considered to be no less necessary to the thriving of the horses than good feeding; according to a common expression, it is equal to half their food.

The general management of farm horses in the improved districts of the north, may be presented as a good example. There, for about four months in summer, horses are fed on pastures; or on clover and rye grass, and tares cut green, and brought home to the stable or fold-yard; the latter method being by far the most economical and advantageous. For the other eight months, they are kept on the straw of oats, beans and peas, and on clover and rye grass hay. As soon as the grass fails towards the end of autumn, they have hay for a few weeks, and when the days become so short as to allow of no more than from six to eight hours' work, they are very generally fed with different kinds of straw, according to the circumstances of the farm; in the month of March they are again put to hay till the grass is ready for being cut.—Throughout all the year they are allowed more or less corn, when constantly worked; and during the time they are on dry fodder, particularly when on straw, they have potatoes, yams, or Swedish turnips, once a day, sometimes boiled barley, and, in a few instances, carrots. A portion of some of these roots is of great importance to the health of horses, when succulent herbage is first exchanged for hay at the end of autumn; and it is no less so towards the latter end of spring, when hay has become sapless, and the labour is usually severe. At these two periods, therefore, it is the practice of all careful managers, to give an ample allowance of some of these roots, even though they should be withheld for a few weeks during the intermediate period.

The quantity of these different articles of food must depend on the size of the horses, and the labour they perform; and the value upon the prices of different seasons, and in every season, on the situation of the farm with respect to markets, particularly for hay and roots, which bring a very different price near large towns, and at a few miles distant. It is for these reasons that the yearly expense of a horse's maintenance has been estimated at almost every sum, from 15*l.* to 40*l.* But it is only necessary to attend to the expense of feeding horses that are capable of performing the labour required of them, under the most correct and spirited management. Such horses are fed with oats, sometimes with beans, three times a day, for about eight months; and twice a day for the other four, when at grass; and, at the rate of eight feeds per bushel, each horse will eat fifteen quarters of oats, or twenty bolls Linlithgow measure in the year.—When on hay, he will require about one stone of twenty-two pounds *avoirdupois* daily, and five pounds more if he does not get roots. One English acre of clover and rye-grass, and tares, may be necessary for four months' soiling; and a quarter of an acre of potatoes, yams, or Swedish turnips, during the eight months he is fed with hay or straw. The use of these roots may admit of a small diminution of the quantity of corn in the winter months, or a part of it may be, as it almost always is, of an inferior quality.

The expense of feeding a horse throughout the year; may therefore be estimated, in regard to quantities, as follows:

Oats, fifteen quarters.
Soiling, one acre of clover and rye-grass, and tares.
Hay, part of October and November, March, April, and May, 1½ ton.
Straw, for other four months, half the price of hay.
Potatoes, yams, or Swedish turnips, ¼ acre.

The extent of land required for a horse's maintenance, supposing the soil to be of a medium quality, may be about five acres; that is, for oats three acres, soiling one, and one more for hay and roots. On rich soils four acres will be sufficient; but on poor soils, and wherever horses are kept at pasture, the produce of six acres and a half, or seven acres, will be consumed by one of them, when worked in the manner already mentioned. The straw of about two acres must be allowed for fodder and litter, the last of which has not been stated above, because, at a distance from towns, what is allowed for litter must at any rate be converted into dung. If sixty acres, therefore, should be assumed as the average extent of land that may be kept in cultivation by two horses, according to the best courses of modern husbandry, the produce of ten acres of this will be required for their maintenance; or, a horse consumes the produce of one acre out of every six which he cultivates, according to a four or six years' course, and sometimes more than one acre out of every five which he ploughs annually. (*General Report of Scotland*, vol. iii p. 192.)

INDIAN CORN.

Sir, *Harris's Lot, Charles co. Md., Jan. 7, 1829.*

In the American Farmer of last month, Mr. Jas. W. Jeffreys, of North Carolina, mentions a remarkable stalk of corn which grew on his farm the last year, it being upwards of 16 feet high. He does not state the thickness of the stalk or the product; the land generally produced a large crop.

Seeing this, induced me to examine more minutely a stalk of corn which had been in my passage since the fall of 1826, and which grew that year on my farm.

The stalk measures around, at the second joint from the bottom, 7½ inches, had seven good sound ears of corn on the main stalk, and two small ones on a sucker; each joint producing one ear, from the *fifth* to the *eleventh* inclusive. The height of the stalk I did not measure, as the top was taken off at the usual time of gathering fodder. There grew on the same acre of land upwards of *twenty stalks, from four to six ears on each.* The land was a light, black loam, in the vicinity of shell banks; the corn was planted in drills 5½ feet by 18 inches to 2 feet; was what is generally called a bastard gourd seed, inclining more to the flint.

I feel satisfied that the product of this corn had been greatly improved by my selecting in the field, from stalks of two or more ears, for seed; which custom I have pursued for several years, and I think to great advantage, as the corn from this seed does produce more stalks of two, three and four ears, in similar soil and quality of land, than any I have noticed. There is but little trouble in selecting the seed, and it should be generally adopted.

It was my intention, in 1827, to have sent you the stalk of corn above mentioned, together with three others, two of 6 and one of 5 ears each; but some friends (old bachelors,) seeing the corn, fell in love with the product, and wishing to better their estate, I could not object to their taking it. I still have the stalks of them, with all the schucks, &c. which if an opportunity offers I will send you.

Respectfully, your obed't serv't,
J. S. Skinner, Esq. DAN'L JENIFER.

ON SHIFTING CATTLE.

J. S. Skinner, Esq. *Richlands, Jan. 12, 1829.*

Sir,—I have just read the letter of your Philadelphia correspondent, signed T. J. R., on the subject of "shifting cattle." I agree with him decidedly.

It has been the policy of the graziers in the rich and fertile vallies in England, for more than sixty years, to purchase the *small* Highland bollocks of Scotland. These cattle, when turned upon such pasture, become surprisingly fat in a short time, and will yield the grazier a quicker and greater profit for the capital employed than any other stock of the neat kind. Their beef is excellent, being small, and the fat so beautifully mixed or marbled with the lean, and its flavour surpassing all other, gives it a preference in the London and other markets. So, too, with the small, but beautiful "Cheviot sheep," when taken from their native hills and turned upon fine pasture, will fatten quicker than others; and who, that ever tasted their mutton, would buy the Leicester or Lincolnshire in preference?

I have no prejudice against large stock. No one can admire more than I do, the fine points, qualities, disposition, &c. of the "Improved Short horns;" but I do maintain that it takes strong land and good treatment to do them justice. *It is only rich land, in my opinion, that will support the size of any description of stock for any length of time.* It would be impolitic, therefore, for any farmer, upon thin land, and of course scanty means of provender, to attempt to raise such stock. There are others far better suited for him: I mean the "Devons, Galloways," and some others. I dislike to see the present mixed breeds. These two breeds are admirably suited to our country. They are good milkers, kind feeders, will stand the climate, and travel better than most others. We are all interested in encouraging these improved breeds; they will amply remonerate the breeder, the grazier, the feeder, the butcher, as well as the consumer. Why then do we not set about it?

It seems to be the policy of the feeders in the rich valley of the South Branch of the Potomac, (as far as my observation goes,) where food is abundant, to prefer large cattle, without much regard to their proportion, or disposition to fatten.* Plenty of corn will hide some defects, let the beast be ever so coarse. They must surely believe that the more corn he can carry to market on his shoulders, the better. If they must have large cattle, why do they not, with the ample means they possess, encourage the raising of the "Improved Short horns." They will do them some credit, as well as profit, and gratify us all. We all like to admire as well as taste.

Very sincerely yours,
JAMES CUNINGHAM.

HORTICULTURE.

NATIVE WINE.

A correspondent at Washington writes to Dr. Mitchell, that he has recently returned from the south, bringing with him fifty-two varieties of the grape vine, indigenous to the United States. Among the collection is the celebrated Scuppernong, a native of Washington county, North-Carolina, and deriving its name from that of the swamp in which it grows. A planter in that state has four acres of it under cultivation. It is so prolific, that a single vine has in one instance produced 2,000 pounds of grapes, yielding eight barrels of wine, which is well known to be of delicious flavor. Like Madeira it improves by age. The planter alluded to has kept some of it fourteen years. Dr. Mitchell is to receive a cask by way of compliment, and for the purpose of making experiments on its qualities. We can bear witness to its excellence, having often found it on the festive boards at Washington.

The extended territory of the United States, embracing every variety of climate and soil, affords all possible advantages for the cultivation of the grape; and it is hoped the day is not distant, when the produce of our vineyards will in a great degree supersede distilleries and breweries. Upon this subject, we have never entertained but one opinion. It will be found to be universally true, that the inhabitants of wine-growing countries, such as France, Italy Spain, and Portugal, are habitually temperate. The salutary effects of substituting light wines, in place of ardent spirits, cannot for a moment be doubted; and the numerous societies in our country for the suppression of intemperance could in no way be more useful to the country, than by recommending the planting of vineyards. [*N. Y. Statesman.*

INTERNAL IMPROVEMENT.

Population of England—or, rather, of Great Britain.

"The United Kingdom of Great Britain and Ireland contains 74 millions of acres; of which at least 64 millions of acres may be considered capable of cultivation. *Half* an acre, with ordinary cultivation, is sufficient to supply an individual with corn, and one acre is sufficient to maintain a horse; consequently, the United Kingdom contains enough of land for the sustenance of 120 millions of people, and 4 millions of horses." Edmunds on Political Economy, as quoted in the Saturday Evening Post of Philadelphia, Dec. 27th, 1828.

In the United States, at the present epoch, we use the terms *internal improvement* in a restricted sense, confining their meaning to roads, canals, and at the utmost to roads, canals and manufactories. There are, however, internal improvements of infinitely more importance than either of those great objects. There are meliorations in the domestic habits of society, which take precedence of any plan of general improvement, and meliorations, without which those magnificent designs, even when executed, lose great part of their value; and of all meliorations, condensed population, where that population can be comfortably supported, is the greatest. In fact, many of the most essential improvements in the moral condition of mankind, cannot be accomplished without condensed population.

From uncontrollable causes, the people of the United States have been scattered over a large surface, when compared with their numbers; but this spreading of the physical force over too wide an area, has been also superinduced by radical errors in domestic economy. Of these errors, the most essential, because sapping the very foundations of society, is the excessive price demanded for landed property, either on purchase or rent. We have had the singular inconsistency, to place a very low price on the national domain, and as individuals, along the Atlantic slope particularly, to demand an excessive price for private landed property. Human ingenuity might have been tortured in vain, to devise a means more efficacious to leave the Atlantic states unpeopled, whilst emigration was pouring into the Central basin.

Grave senators, and some senators not very grave, have uttered complaints of the great and augmenting power of the western and south-western states, and giving every cause but the true cause for their loss of power in the general national legislature. Others again have ascribed to relative fertility of soil, the cause why Ohio, forty years past a wilderness, should at present exceed in density of population every Atlantic state south of Pennsylvania.—Fertility of soil, either real or imaginary, had its weight in this revolution; but what is the value of that weight, when placed in the same scale with the relative price of land at the two extremes?

Let us state a case, and confine our remarks in this paper to Maryland. In parts of this state, and in fact, more or less, over its whole surface, individuals who are owners of landed estates, hold more of that property than they can use or improve.—Many of these estates are encumbered by mortgages, and yet landed property is held from 500 to 1000 per cent above the value of national land of better soil. Rents are again in an equally excessive ratio. A high price is set on the land, and in most cases wretched buildings and enclosures, and then, from 5 to 10 per cent. on that surcharged estimate demanded for rent. As it is my intention to devote a paper to the single subject of renting land, I shall now continue the comparative review.

In the ten years from 1810 to 1820, the population of Ohio increased in the ratio of 23 to 58; Maryland as 38 to 40; Virginia as 9 to 10 very nearly; North Carolina as 55 to 63; South Carolina as 41½ to 50, and Georgia as 25 to 34.

Table of the Relative Ratio of Increase.
Ratio from 1810 to 1820.

252	Ohio.
105	Maryland.
111	Virginia.
114	North Carolina.
120	South Carolina.
132	Georgia.

Thus, in the last decimal period on which a census was made, whilst 100 persons in Ohio gained 52, same number gained but 5 in Maryland. With the proximity of Maryland to superior markets, the less expense of removal, and the real *vis inertia* of man! it is in vain to ascribe its stationary, or nearly stationary population, and the rapid augmentation of Ohio, to any other cause but the enormous difference in the purchase of land. It is a very trifling farm in Maryland which can be rented for 50 dollars annually. This very small sum, and its interest at 6 per cent. in five years, amounts to a small fraction above $300. This sum of three hundred dollars will purchase from the national domain more acres of better land, than it can purchase for 5 years on rent in Maryland.

If Maryland was teeming with inhabitants, this disparity would be less glaring; but in fact, a great share of that part of the soil actually cleared of timber lies waste, or as bad as waste, from defective husbandry and want of employment for the few inhabitants actually in the state. The following table will enable the reader to scan more clearly the true principles on which population may safely increase.

Table of the Population of England and Wales, containing together 66,460 square miles, for each ten years, from 1700 to 1821 inclusive, using round numbers.

Year.	*Population*	*to the Sq. Mile.*
In 1700,	5,475,000	82
1710,	5,240,000	78
1720,	5,565,000	83
1730,	5,796,000	86
1740,	6,064,000	91
1750,	6,467,000	97
1760,	6,736,000	101
1770,	7,428,000	111
1780,	7,953,000	119
1790,	8,675,000	129
1800,	9,168,000	138
1810,	10,150,615	152
1821,	11,978,875	180

The elements on which this table was compiled, I took from the British parliamentary reports, and inserted in my Geographical Dictionary, article Great Britain. In the first period of ten years, from 1700 to 1710, we find that the actual population of England and Wales decreased, and that the increase was very slow for the first sixty years, and on the contrary very rapid for the second sixty of the whole period of 121 years.

We ought to be certain of the correctness of our data before we assign causes for any phenomena; but in this case can there remain rational doubt, when we compare the progress of population in England and Wales with that of internal improvement and manufactures in the same countries? The incipient commencement of artificial inland navigation in England dates far backwards, but the first act of Parliament for a canal in that kingdom was obtained by the Duke of Bridgewater, in the 33d Geo. II. 1760. Previous to that epoch, the numerous acts of parliament had been made with a view to improve the channels of rivers.*

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*I do not mean particularly to reflect upon the South Branch. I have seen some noble cattle from that quarter, but many coarse animals too; such as will yield comparatively small profit to the feeder.

The Duke and his two great engineers, Brindley and Gilbert, had genius to discern, and perseverance to accomplish a revolution which has extended beyond England and reached the United States. From the year 1760 to 1821, upwards of 2400 miles of canal had been opened in England and Wales; and the aggregate population increased from 101 to 180 to the square mile.

With the advance of canals in England, went also that of manufactures, particularly of cotton. That kingdom was, in a most eminent manner, served by two men of very different talents and views. Arkwright gave, I might say, a complication of new mechanical forces, which enabled the nation to multiply the products of the loom to an immeasurable extent; and Adam Smith, in his Wealth of Nations, went far towards persuading other nations to buy these products.

Some writers have noticed and observed, that the population of England diminished in the early part of last century, from the effects of war; but such reasoning is at once refuted by the fact, that the end of the same century and the commencement of this was also a period of war, and yet the population augmented in the latter case.

There is nothing more common than to hear men using the terms *surcharged population.* What is meant by such an expression? Why nothing can be rationally intended, unless it can be shown that there are more persons than can be comfortably accommodated with clothing, food and shelter. It is very probable that in 1700, when England and Wales contained 5,475,000 inhabitants only, that both countries were as overcharged with population as in 1821, when the same space contained nearly 12,000,000. The state of Maryland embraces about 5-33 as much area as does England and Wales, and if peopled to a proportional extent, would contain upwards of *one million eight hundred thousand inhabitants.*

In every instance where I have engaged on the discussion of any subject that put it in my power, I have used my humble means to demonstrate a powerful tendency in the United States to a central condensation of population. In this paper I have glanced at the prominent cause of such a tendency. The result is left to flow from the present course of things, I need not notice, as that result is obvious. I am far from willing to allow 1,800,000 as the maximum population of Maryland; that would be only a distributive population of 180 to the square mile; whilst I trust to show, that upwards of 200 could be amply supported on that surface over the whole Atlantic slope of the United States; and I trust further to show, from the best of all data, (facts drawn from experience,) that unless a change is effected in domestic economy, that the centre of legislation will follow the centre of physical force.

The relative situation of the Atlantic states of the United States is, in one respect, peculiar. On one side is Europe, with a dense population and matured manufactures; and on the other an immense, I might say, an illimitable interior, where the best of land can be procured for two dollars per acre.

Complaints are incessant, along the Atlantic slope, that landed estates cannot be sold except at enormous sacrifice. These complaints, when translated into the language of common sense, amounts to this: that 5, 10, 15, 20, and on to 100 dollars an acre, cannot be *obtained* for land in one part of the United States, whilst land can be *obtained*, of at least as good quality, for 2 dollars per acre in another section of the same country.

It might be asked of the citizens of any Atlantic state, why it was, that whilst the aggregate population of the whole Union doubled in less than 25 years, than nearly, or perhaps more than one hundred, would be demanded to produce a similar augmentation in their own state? The answers to this query would be various, as the intellect and views of the respondents; but few landholders would be willing to acknowledge that they were themselves contributing powerfully to a retardation of the state in which their lands were situated. It is a combination of all the creative arts in fine, that gives land a real high value. If therefore, the manufactories of the United States were in Europe or China, that part of landed value given by manufactories, must fall on the acres of Europe and China.

Let me here discriminate between labour-saving machinery, and manufactories. It is not the more or less facility with which manufactured products are made, but where they are made, which is the important subject of inquiry. Nor is it the number of acres contained in any given country, but the multifarious productive arts exercised on them which stamp a value on those acres.

WILLIAM DARBY.

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* Brewster's Encyclopædia, Art. Inland Navigation, page 278—Phila. edition.

LADIES' DEPARTMENT.

(From the Boston Centinel.)

SPECIMEN OF ALLITERATION.

The following is probably the most perfect specimen of *Alliteration* extant. Whoever has at any time attempted to indite an *acrostic* merely, is aware of the embarrassment of being confined to particular initial letters. Here the whole *Alphabet* is fathomed, and each word in each line, claims its own proper initial. It is worthy the indefatigable perseverance of another Dean Swift.

SIEGE OF BELGRADE.

"An Austrian army, awfully arrayed,
Boldly by battery, beseiged Belgrade;
Cossack commanders cannonading come,—
Dealing destructions devastating doom:
Every endeavor, engineers essay,
For fame, for fortune,—fighting furious fray;
Generals 'gainst generals grapple—gracious God!
How honors Heaven, heroic hardihood!
Infuriate,—indiscriminate in ill,
Kinsmen kill kinsmen,—kinsmen kindred kill!
Labor low levels loftiest, longest lines—
Men march 'mid mounds, 'mid moles; 'mid murderous mines:
Now noisy noxious number notice nought,
Of outward obstacles opposing ought:
Poor patriots, partly purchased, partly pressed,
Quit quaking, quickly quarter, quarter 'quest;
Reason returns, religious right redounds,
Suwarrow stops such sanguinary sounds,
Truce to thee Turkey—triumph to thy train!
Unjust, unwise, unmerciful Ukraine!
Vanish vain victory, vanish victory vain!
Why wish we warfare? Wherefore welcome were
Xerxes, Ximenes, Xanthus, Xaviere?
Yield! ye youths! ye yeomen yield your yell!
Zeno's, Zarpater's, Zoroaster's zeal,
And all attracting—arms against appeal."

The Youth's Journal relates an answer given by a child to impertinent inquiries, which is too good to be kept a secret from step-fathers and step mothers. A widower in New England, having children, married a widow who had children also. One of the *female women* in the neighbourhood, having a most benevolent itching to learn how affairs moved on after the junction of these families, inquired of one of the boys, "how he liked his step-mother, or mother-in-law?" to which he promptly replied that he had none. The woman rejoined, "Why, yes you have. You don't think she is your mother. Does she treat you as well as she does her own children?" The boy shrewdly and wisely replied: "When father and mother married, he had children, and we went there to live with her, and she took the children, and mixed us all up together, like hasty pudding, and has not known us apart since."

[*Boston Palladium.*

SPORTING OLIO.

PEDIGREE OF VIRGINIAN.

MR. SKINNER, *Philadelphia, Jan. 10, 1829.*

Sir,—As the pedigree of VIRGINIAN does not appear to be inserted in any of your valuable papers, I send it to you as I received it from, and in the hand writing of Capt. Harrison, the former owner of this distinguished racer. His numerous colts are now on the turf, and the expectations of their owners more than realized in their performance.—It seems by sportsmen to be universally assented to, that Virginian, in point of *size, symmetry, figure*, and *colour*, has never been surpassed in this country.

Brunswick county, Va. Oct. 8, 1824.

This is to certify, that the celebrated horse Virginian was sired by the famous and celebrated old Sir Archy; he by the imported horse Diomede, he by Florizel, he by King Herod, he by Old Partner, out of Meliora by Fox. Archy's dam was the celebrated imported mare Castinara, (imported from England by Col. Tayloe, of Mount Airy, of Virginia,) by Rockingham, he by Tattersall's famous Highflyer, (when he covered at 50 guineas, and one guinea to the groom for each mare,) his dam Purity by Match'em out of Pratt's famous Squirt mare, which produced seventeen foals, out of which twelve were good runners. Castinara's dam was the celebrated mare Tabitha by Trentham, her sister of Grecian Princess by Forrester; her grandam the dam of Pegasus (by Bosphorus,) out of a dam by the Coalition colt, son of the Godolphin Arabian, her g. g. dam by Bustard, out of Lord Leigh's Charming Molly by Second, (which was gotten by South, he by Regulus, and he by the Godolphin Arabian,) her g. g. g. dam was by Mr Hanger's brown mare, by Strangan's Arabian, out of Gipsey by King William's No-Tongue Barb—dam by Makeless, and he by Oglethorp Arabian out of a royal mare Trentham, (called Terrible, on account of his peculiarity of shape,) was gotten by Sweepstakes, and he by the Bloody-shouldered Arabian, his dam by South, the dam of Cartouch, he by the Bald Galloway—Cripple Barb, (at Hampton Court,) Makeless—Place's White Turk, Layton's Barb. Trentham's g. dam Ebony, by Bartlett's Childers, out of old Ebony, by Basto.

VIRGINIAN's dam, Metrix by Magog, he by Chanticleer, he by Wildair, he by Cade, and by the Godolphin Arabian; his g. dam Narcissa by the imported horse Shark; his g. g. d. Rosetta by Centinel, (he by Blank, and he by the Godolphin Arabian,) his dam by Cade, and he by the Godolphin Arabian; his grandam by Partner out of Bonny Lass by Bay Bolton; his g. grandam by Darley's Arabian, his g. g. grandam by the Byerly Turk, (which was Capt. Byerly's charger in King William's wars in Ireland, in the year 1639,) his g. g. g. grandam by the Toffolett Barb, his g. g. g. g. grandam by Place's White Turk, out of Mr. Trigonwell's Natural Arabian mare. Blank was a full brother to old Janus; Shark was gotten by Marsk out of a Snap mare; her dam (Warwickshire Wag's dam,) by Marlborough, cousin also to old Janus, and brother to old Babraham; her dam was a natural Barb mare; Marsk was also gotten by Squirt, his dam by Blacklegs, his grandam by Bay Bolton, his g. grandam by Fox Cub, his g. g. grandam by Coneyskin, (which was gotten by the Sister Turk, and foaled in the year 1712, the property of the Duke of Rutland,) his g. g. g. grandam by Hatton's Bay Barb, his g. g. g. g. grandam was a daughter of Hatton's Royal Colt, his g. g. g. g. g. grandam by the Byerly Turk, and his g. g. g. g. g. g. grandam by Bustler. The Sister, or Stradling Turk, was brought into England by the Duke of Berwick, from the siege of Bender, in the year 1526, in the reign of king James the second.

Thus may Virginian be traced, through a noble race of ancestors, as far back as 295 years! Where is a race horse, descended from the English race horse, in America, that can boast of this? None; not even his father—the great, the celebrated horse Sir Archy himself.

(Signed,) JAMES J. HARRISON.

(Witness,) Allen James.

Except for our own amusement, I do not know the advantage of tracing pedigrees so far back, unless that it be to show a relationship with the Arabian. Certainly the gratification of pride will hardly compensate for the trouble; as it is well known that by a few successive generations, the original blood may be so entirely sunk or expelled, as to leave nothing of its former impression.

I am, most respectfully,

W. WALLACE COOK.

(From the Hunting Directory.)

HOUNDS.

Extraordinary speed of Fox Hounds.—Of the origin of Hounds—The Talbot or Blood Hound, the Stag Hound, the Southern Hound, the Beagle, the Fox Hound.—The Olfactory Organs of the Hound.—Of the Size, Colour, and Breeding of Hounds, &c.

(Concluded from page 350.)

"Young hounds are commonly named when first put out, and sometimes indeed ridiculously enough; nor is it easy, when you breed many, to find suitable or harmonious names for all; particularly, as it is usual to name all the whelps of one litter, with the same letter, which to be (systematically done) should also be the initial letter of the dog that got them, or the bitch that bred them. A baronet of my acquaintance, a literal observer of the above rule, sent three young hounds of one litter to a friend, all their names beginning, as *he said*, with the letter G. *Gowler*, *Gorial*, and *Galloper*.

"It is indeed of little consequence what huntsmen call their hounds; yet, if you dislike an unmeaning name, would it not be as well to leave the naming of them till they are brought home? They soon learn their names, and a shorter list would do. Damons and Delias would not then be necessary; nor need the sacred names of Titus and Trajan be thus degraded. It is true there are many odd names which custom authorises; yet I cannot think, because some drunken fellow or other, has christened his dog Tippler, or Tapster, that there is the least reason to follow the example. Pipers and Fiddlers, for the sake of their music, we will not object to; but Tipplers and Tapsters your kennel will be much better without."

In regard to the size as well as the colour of hounds, it is not likely that there should be an union of opinion; but if the matter be attentively considered, it will, I think, be found that hounds of the middle size are the strongest, and capable of enduring the greatest fatigue. *A good hound cannot be of a bad colour*, it may be said: but a diversity of colour in a pack, has at least an interesting and beautiful appearance. Of the form of the hound, there will not be much difference of opinion:

"His glossy skin, or yellow-pied, or blue,
In lights or shades, by nature's pencil drawn,
Reflects the various tints: his ears and legs
Fleckt here and there, in gay enamel'd pride,
Rival the speckled pard; his rush-grown tail
O'er his broad back bends in an ample arch;
On shoulders clean, upright and firm he stands;
His round cat foot, straight hams, and wide spread thighs,
And his low dropping chest, confess his speed,
His strength, his wind, or on the steepy hill,
Or far-extended plain; in every part
So well-proportion'd, that the nicer skill
Of Phidias himself can't blame thy choice.
Of such compose thy pack. But here a mean
Observe, nor the large hound prefer, of size
Gigantic; he in the thick-woven covert
Painfully tugs, or in the thorny brake,
Torn and embarrass'd bleeds; but, if too small,
The pigmy brood in every furrow swims;
Moil'd in the clogging clay, panting they lag
Behind inglorious; or else, shivering creep,
Benumb'd and faint, beneath the sheltering thorn.
For hounds of middle size, active and strong,
Will better answer all thy various ends,
And crown thy pleasing labours with success."

It has been observed by Beckford, that "it is the judicious cross that makes the complete pack;" and in this I perfectly agree with him; but in writing to his friend, he further remarks:—"A very famous sportsman has told me that he frequently breeds from *brothers and sisters*: as I should be very unwilling to urge any thing in opposition to such an authority, you had better try it." Such a system I cannot recommend for the following reasons:

In the first place, I would wish it to be fully impressed upon the mind of the sportsman, that, whenever, by judicious crosses or otherwise, he has obtained hounds of first-rate excellence, he must nevertheless, in order to preserve such excellence, call in the assistance of other breeds of repute; since, if he confine the propagation to the same family, the *strain* will degenerate, and in the third or fourth generation will become literally good for nothing.—Relationship should be as much as possible avoided in breeding, nor can any better plan be adopted than procuring either the dog or bitch from a distant part of the country.

The ill consequences of breeding *in-and-in*. to use a sportsman's phrase, are now tolerably well known, and the remark is not confined to hounds only, but would seem to apply equally perhaps to the whole circle of nature. The judicious farmer, aware of the evil, spares neither expense nor pains in crossing his horses, cows, and sheep; his pigs and poultry. Even the human species, by the intermarriages of families, strikingly exemplifies these observations—degeneracy of mind as of body is thus produced; scrofulous diseases are the certain result; and hence scrofula is less frequent in large towns; but is uniformly found to prevail in all secluded villages, where the continued intercourse of the same families has existed for a few generations.

If, therefore, the object of the sportsman be to procure and maintain a good breed of hounds, let him have recourse to other breeds of undisputed merit, if from a distant part the better perhaps; but if his neighbour's dogs stand in no degree of affinity, he need not be at the trouble of seeking for greater strangers.

The foregoing remarks are not exclusively applicable to animated nature, but may be very justly extended to the vegetable world: hence the farmer never sows corn on the land where it was produced; and hence seed potatoes grown in Scotland are imported into Lancashire, where this useful vegetable attains the utmost possible perfection.

A bitch will become *proud* very frequently before she is twelve months old, the first symptoms of which are the red appearance and swelling of the *vulva*; but she will not, for some days, suffer the dog to *ward* her: however, as the heat advances, she will play and dally with him, and manifest every inclination to copulate. But as these animals grow generally till they are two years old, they ought not to be suffered to breed before that period. Nor is it a little remarkable, that, if you suffer a bitch to receive several dogs, such as a terrier, a greyhound, a bulldog, &c. she will frequently produce puppies of all the different kinds.

Young hounds should be tied up or confined as little as possible, as it spreads their feet, and they become *out at the elbows*, and bandy-legged. The same effects will be produced in a full-grown dog, but in a much less degree. Dogs of all ages should have free access to good clean water, a clear stream if possible.

The period of gestation in the bitch is about sixty-three days. The young are brought forth blind: the two eye-lids are not merely glued together, but shut up with a membrane, which is torn off as soon as the muscles of the upper eye-lids acquire sufficient strength to overcome this obstacle to vision, which generally happens about the tenth day. At this period the young animals are extremely clumsy and awkward. The bones of the head are not completed; the body and muzzle are bloated, and the whole figure appears ill-designed. Their growth, however, is rapid; and in about six weeks they acquire the use of all their senses. When four months old, they lose their teeth, which are quickly replaced, and are never afterwards changed.

A dog's age may be tolerably well ascertained by the appearance of his teeth. A young dog's teeth generally look clean and white;—at an early period of his existence, his front teeth are serrated, and as he increases in age, this saw-like appearance gradually wears out. At four years old, or perhaps sooner, it is no longer observable: the teeth turn yellow, fade, and drop out as the animal grows old; and if he be fed principally on bones, his teeth become short and blunt at an early period. A dog, if worked hard, will turn grey at eight or nine years of age, and exhibit every symptom of decay—such as bad sight, loss of hearing, &c. Fourteen years is the general period allotted for the life of a dog; but if he be kept to hard labour each season, he will seldom live so long.

MISCELLANEOUS.

ALL FOR WANT OF A LATCH.

M. Say, a celebrated French writer on political economy, has the following story:

"Being in the country, I had an example of one of those small losses which a family is exposed to, through negligence. From the want of a latch of small value, the wicket of a barnyard, (looking to the fields) was often left open—every one who went through drew the door to, but having no means to fasten it, it remained flapping; the poultry escaped and were lost. One day a fine pig got out and ran into the woods, and immediately all the world was after it, the gardener—the cook—the dairy maid and all ran to recover the swine. The gardener got sight of him first, and jumped over a ditch to stop him, when he sprained his ancle, and was confined a fortnight to the house. The cook on her return, found all the linen she had left to dry by the fire, burned; and the dairy maid having ran off before she tied up the cows, one of them broke the leg of a colt in the stable. The gardener's lost time was worth twenty crowns, valuing his pain at nothing; the linen burned, and the colt spoiled were worth as much more. Here is a loss of forty crowns, and much pain, trouble, vexation and inconvenience, for the want of a latch, which would not cost three pence: and this loss, through careless neglect, falls on a family little able to support it."

Damask Table Linen.—Mr. Hamilton Stewart, of Pittsburg, has commenced the manufacture of Damask Table Linen; the Statesman of that city observes, that "the Table Cloths are extremely neat, and what is of equal importance, they are very cheap, and of a texture that will insure service and durability. In weaving the cloth, the threads are so arranged and managed, that almost any figure, name, or letters, can be made to appear in full view upon the surface."

Gas Spring.—A spot has been discovered in the hill side, near the Universalist church, in the village of Utica, New-York, from which issues constantly a considerable volume of *inflammable gas*, which appears to be pure *carburetted hydrogen*. It burns with great intensity, and affords a very brilliant light. The deeper the cut the greater the quantity of gas evolved is said to be.

The following verse, which has attracted our notice from its originality rather than its elegance, is copied from a tombstone about to be placed in the church-yard of a neighbouring village:—

"A happy couple we always *was*
And that we always *ment*,
Let the world go how it would
We always *was* content."

[*Brighton Gazette.*

RECIPES.

(From the Washington Telegraph.)

Mr. Editor.—As this is a season when severe colds are very prevalent throughout the District, I have taken the liberty to send you for publication, the following recipe, which I found very effectual in my own case:

Cure for a Cold.—Take a teaspoonful of flax-seed, with two penny worth of stick liquorice, and a quarter of a pound of sun raisins. Put them into two quarts of soft water; and let it simmer over a slow fire, till it is reduced to one; then add to it a quarter of a pound of brown sugar candy, pounded—a table spoonful of white wine vinegar or lemon juice.

Note.—The vinegar is best to be added only to that quantity you are going immediately to take; for if it be put into the whole, it is liable in a little time to grow flat.

Directions.—Drink half a pint at going to bed, and take a little when the cough is troublesome.

This recipe generally cures the worst of colds in two or three days, and if taken in time may be said to be almost an infallible remedy. It is a sovereign balsamic cordial for the lungs, without the opening qualities, which endanger fresh colds on going out. It has been known to cure colds, that have almost been settled into consumption, in less than three weeks.

The preparation is a tea spoonful of vinegar to half a pint of the medicine.

Prescription against Dyspepsia and Hypochondria.

TRANSLATED FROM THE SPANISH.

An honest and a temperate life,
No dealings with the apothecary,
And from this maxim never vary,
On no account engage in strife;
Be moderate in your appetite,
Amusement take, and exercise,
Avoid the cares that life supplies—
In country walks take much delight—
Little confinement, much enjoyment,
And continual employment.

Employment, indeed, seems to be the only sovereign panacea. It is as necessary to happiness, as Cicero's *action*, is to an Orator.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 23, 1829.

☞ The Editor of the American Farmer feels justified in assuring his patrons, that henceforth they will be even more fully and exactly than heretofore, supplied with the latest news and information from abroad and at home, relative to the prices of our great *staple products*. As many of his readers send their produce to other markets than that of Baltimore, the latest accounts of the state of the market in our principal cities will be given with the greatest care, and from the best sources.

He takes the occasion to add, under a sense of particular gratification, that the demand for the American Farmer, within a few months past, has been more than usually flattering as to the number and character of the new subscribers. He trusts the encouragement thus afforded will be seen by its proper effect on the character of the work; and in the confidence of that, he solicits his patrons, new and old, to use their influence to extend its circulation in their respective neighbourhoods. Wherever a gentleman can recommend an agent who may be relied on for *punctuality*, and who will make a business of getting subscribers, a commission will be allowed that will very liberally remunerate him for his trouble, and in some parts of the country, even make it an object worthy of exclusive attention. It is no compliment to himself, but one which is due exclusively to the Editor's correspondents, to say, that those who promote subscriptions to the American Farmer, render a lasting service to the interests and character of American agriculture.

☞ The Committee on the Post Offices and Post Roads in Congress, has reported against stopping the transportation of the mail and opening Post Offices on Sunday.

☞ **The Flour and Grain Market.**—The late foreign news has had the effect of suspending operations during the principal part of the week. Sales of between two and three thousand barrels of Flour were made, on Wednesday, at about $8.50, for Howard street, and $8.25, for wharf. Good red wheat, was sold on the same day at $1.80. The price of Flour however, is very unsettled.

☞ **Revolution in Mexico.**—By the schooner Shamrock, from Tampico, information is received of a revolution having taken place in the government of Mexico. On the 30th November, a regiment of artillery, and one or two of militia, revolted; and on the 1st of December, an action began between them and the government troops, which continued till night. The fight was renewed on the 2d, and continued till the 4th in the afternoon, when the rebels got possession of the palace and all the convents. From three to five millions of property was then taken by the canaille and victorious soldiers, from the Parian and Portales, and other shops. The leaders of the insurgents were, Garcia, (who died of his wounds,) Sorata, the three Tolsas, two Frenchmen, and another.—The revolution appears to have been completely accomplished in the city; and *Guerrero*, the opponent of Pedraza at the late election, is at the head of the government. Pedraza had left the city, with some hundred horses and many officers, and is collecting forces in Puebla. It is stated that the new party are acting with much wisdom; so that the result is doubtful.

ITEMS OF LATEST FOREIGN NEWS.

As connected with the agricultural interest.

Several packets have arrived at New York, since our last No. bringing intelligence from London to the 2d December, Liverpool to 30th November, and Paris to 2d December. There is not a word of important news, contained in the whole mass of foreign papers, that have reached this country by these arrivals, if we except that in relation to the Flour and Grain Markets. Nothing had occurred between the Russian and Turkish armies. The Turks were preparing for a winter campaign; the Emperor Nicholas, had returned to St. Petersburgh, and the Empress mother had deceased.

The British Ports were opened to the importation of Foreign Flour and Grain, at a duty of one shilling per quarter, (8 bushels.) The duty on a bushel of Wheat, is a trifle less than 3 cents, and that on a barrel of flour about 13½ cents.

London, *Dec.* 1. Evening—The average price of wheat has at length reached that point at which it may be imported, or taken out of bond, at a duty of 1s. per quarter. The quantity of foreign wheat thrown upon the market in consequence is variously stated at from 3 to 500,000 quarters; a reaction has consequently occurred, yet not in any violent degree; it has principally affected old wheat, as might have been expected. The importations into the port of London alone have exceeded 100,000 quarters within the last month; and it is probable that every exertion will be made to import as much as possible, before the Baltic is closed for the winter. Now therefore, is the time to watch the operation of our new Corn Law in regulating prices, and to acquire some idea of the supply with which the Continent may be able to furnish us. In the mean time, if the introduction of 4 or 500,000 quarters does not materially depress our market, there will be little reason to expect that prices will be low during the year. Farther, if the whole of the foreign supply, added to our own growth, shall amount to about our average consumption, neither growers nor consumers will have much reason to complain of the operation of our present Corn Law, for a quantity nearly equal to our usual wants must be procured, if possible, under any system; and more than our regular consumption the consumer has no title to require.

Dec. 1.—Our market during the past week, as well as this morning, was well supplied with English Wheat, and most abundantly so with foreign. We had a good many country buyers up to-day, and there was more life in the trade than we have experienced for several days, and fine quality of our own growth fully maintained last week's quotations, whilst that from abroad obtained an advance of from 1s. to 2s. per quarter. English Wheat—Essex, Kent, and Suffolk, white, old, 80 a 90s; do. new, 65 a 80; red, 70 a 82s; do. new, 55 a 70s.; Norfolk, &c. old, 78 a 88s.; do. new, 65 a 80s.; red, 55 a 70s.; Berwick and Scotch, 70, a 80s.; do. new, 55 a 70s.; Rye, 34 a 40s.; Flour, per sack, 70 a 75s. Foreign Wheat—Dantzic. 76 a 90s.; Brabant, 66 a 82s.; Pomeranian, 68 a 82s.; Hamburg, 67 a 82s.; Petersburg, 64 a 70s.; Rye, 32 a 39s.; Indian Corn, 34 a 40s.; Flour, Canada, per bbl. 48 a 54s.; Dantzic, do. 50 a 56s.

Dec. 2.—We are happy to find from the German mails received this morning, that the price of corn is falling in the foreign markets, and the abundant supply yesterday at Mark-lane, will doubtless bring down the prices in the home markets.

Liverpool Corn Exchange, *Nov.* 22.

The magnitude of the supplies, which have exceeded those of any previous week since the harvest, together with the admission of upwards of 400,000 quarters of foreign wheat at a duty of 1s. per quarter, and the probability of a similar duty on any that may arrive for several weeks, has tended further to reduce the prices of all free Grain; wheat is 2d to 3d. and Oats fully 1d. per bushel below the quotations of the previous week; some parcels of the former were a day or two ago forced at a greater decline, but at this morning's market there was rather more confidence, and the best Irish new wheats were saleable at our quotations. Flour is fully 1s. cheaper. Indian Corn has also been sold at a similar abatement.

Nov. 25.—Our supplies of Grain, &c. from Ireland and coastways were very large during the past week, but we had little Foreign, and nothing from Canada. At our Corn Exchange to-day, there was a fair attendance of the town and country dealers looking after Foreign wheat, but the sales were inconsiderable; for Irish there was also a good inquiry, and the show of samples being small, an advance of 1d to 2d per 70lbs. on best, though only to a limited extent, the sales being in retail. Indian Corn firm. The transactions in Meal and Flour were only to a moderate extent at the prices quoted.

Wheat, English White per 70 lbs. 10s 6d to 11s 6d; do Red, 10s to 11s 3d; Scotch, Welsh, and Manx, 10s to 11s 6d; Irish White, 10s 6d to 11s.; Irish Red, 9s to 11s; Foreign, 10s. to 11s; Flour, English and Irish, per 280 lbs. 56s to 60s.; Indian Corn, per 480 lbs. 38s to 42s.; Rye, per imperial quarter, 38s to 40s.

Nov. 24.—*Cotton.*—The sales of Cotton last week are confined to 8350 bags, and the prices generally have declined ½d per lb. The sales of Cotton on Saturday and to day amount to about 2,500 bags for the two days. The market has been rather dull, but prices are not lower to-day.

Sales from the 15th to the 22d November, 8358 bags, including—Sea Island, 110 bags, at 14d to 15½d per lb; do stained, 110 at 6½ to 12d; Upland, 4120 at 5¼ to 7d; 170 at 7 1-8d; Orleans, 980 at 6½d to 8d; 30 at 8 3 8d to 9d; Alabama 980 at 6d to 7d. Total import for the same period, 14,253 bags. Ashes—United States, Pot, 30 brls. at 33s 3d per cwt.; Montreal Pot, 280 do at 32s 6d to 34s per cwt; Montreal Pearl, 400 do (old) price not given; 30 do (new) at 33s 6d per cwt.

London, *Nov.* 25.

Tobacco.—There has been great briskness in Tobacco; the sales for the week ending this day, we estimate at above 1,000 hhds., of which about 700 hhds. were taken for Spain; the other purchases are chiefly on speculation. on account of the very depressed prices and short supplies.

Nov. 21.—The Cotton market has continued languid and uninteresting all the week. The purchases by private contract are trivial, and without the slightest alteration in price. 300 Surat, at 3 3-4d to 4 3-4; 20 Madras, at 5 1-4; 80 Bowed, at 5 3-4d to 6 1 4. The East India Company sale of Cotton to-day was but thinly attended; the Bengals, which were put up at 4d in August last, and refused at an advance, were now brought forward at the very reduced taxation of 3 1 2d, they opened at 3 3 4, and the competition becoming animated, they gradually reached 3 7 8 and 4d leaving off at the latter price. The decline is 1-8d to 1 4, and on Surats, (which went off steadily,) 1-8d per lb. on previous currency; 2,700 Bengal sold at 4d, middling and stained (company's cotton;; 1266 Surat, at 4d to 4 1-4d very middling to middling fair, and 70 do. at 4 7-8 to 5d good Madras, 4 1-2d, good fair; and 800 Surat, bought in 4 3-8d, and 1-2 middling fair.

Nov. 25.—The Company's sale of Friday last was very limited, although at a decline of 1-8d; 2,704 bales of Company's Bengal, taxed at 3½d, were sold from 3½d to 4 1 8, principally at 4d, and this price has been since paid for the few lots obtained at 3 3 4d. Of 2,127 bales Surat 1180 have been sold; good, from 4 7 8d to 4d, middling, 4 1-3d to 4 5 8d, also 70 bales Madras good middling, 4½d, beyond this sale the transactions have been very trifling.

Liverpool, 28th Nov.—To-day about 1800 barrels turpentine of fair quality have brought 11s 6d per C. a good price, and yielding a fair profit. Nothing extraordinary done in ashes this week, and a major part of the flour offered by auction 25th instant, has been sold at 42s a 42s 6d per B. We have the pleasure to say, the Napoleon arrived safely, in 18 days, viz. upon the 26th. The Canada in 17 days. The Canning sailed 24th, and has had a bad time of it ever since. The telegraph, however, reports her getting past Holy-head at 5 P. M. 25th.

Sales of Cotton from 22d to 29th Nov. Total of all kinds 8540 bags, including—186 Sea Islands, at 14d. to 15; 4250 Uplands, at 6d a 7d; 30 do. at 7¼ a 7 3-8d.; 1050 Orleans, at 6½d. a 7¾d; 25 do. at 8¼d. a 9d; 580 Alabama, 5¼d. a 6¾d. About 10,000 bags in speculation. Corn market rather lower, and dull. A part of the 1500 barrels of Flour, offered at auction on the 25th, was sold at 42s. a 42s. 6.

Liverpool, Nov. 30—Our Cotton market continues very flat, and the sales this day amount to only 1,000 bags, at the currency of this day's circular.

Still Later News.

The last mails bring intelligence from Liverpool, to the 5th December, received at New York by the Packet ship Caledonian. The following is the most important to our agricultural friends:

Liverpool, Dec. 3, 1828.

The Cotton Market is still dull, which is in general the case at the close of the year, when money becomes scarce. The sales last week were 8340 bags, and prices have declined 1 8d. Bonded wheat and flour are still admitted at the nominal duty, and are likely to continue so for some weeks, as the average of the six weeks ending the 21st ult. was 75s. 8d. Duty on Indian corn 8s. 4d.

Imported from the U. S. in 1827, 630925 bales.
" " " 1828, 416793 do. being a decrease from the U. S. of 219132 bales. Total import from all parts, into the kingdom—1827, 846,025 bales; 1828, 690,777 do.; being a decrease from all parts of 155,248 bales into the kingdom to November 30.

Upland, 5 7-8 to 7 3-8d. Alabama, 6 7-8 to 7 1-4d. Orleans, 6 1-2 to 8 1-2d."

Liverpool Cotton Market, Dec. 4, 1828.

The sales of the week are 7,000 bags; prices have had a further decline of 1-8d. per lb. The import is 6,000 bags, namely, 1,400 Americans, and 4,600 Brazil.

Liverpool Corn Exchange, Dec. 2, 1828.

During the past week there was only a moderate supply of Grain, but we experienced a very limited demand, either in this or the neighboring markets. The few sales of Wheat and Oats made in the course of the week, were hardly on as good terms as our last currency, and almost every other article in the trade participated in the depression.—Of the released foreign grain very little is offering: some fine Rostock Wheat has been sold at 11s. per 70lbs. Several small parcels of Peas, in bond, have been sold at 44s. per quarter.

There was a pretty good attendance of both town and country dealers to this day's market, who bought rather freely of both new Wheat and Oats at the prices of this day week. There was some quantity of fine Wheat also taken on speculation.—Flour and Oatmeal supported previous rates. Some sales of Indian Corn were made at a decline of about 2s. per qr.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS GENERALLY.

The subscriber has on hand, ready for sale, a supply of his Cylindrical Straw Cutters, a machine he believes to be superior to any other in the world for that purpose. Brown's Vertical Wool Spinner, a very useful and simple machine for private family use, perhaps not equalled by any other. A full assortment of Gideon Davis' Patent Ploughs; the superiority of these over all other ploughs is so generally known, that to speak of their merit is unnecessary. A general assortment of highly improved Barshare Ploughs; Corn and Tobacco Cultivators; Patent Corn Shellers; Wheat Fans, warranted equal to any in the state of their size; Harrows; Double and Single Swingle Trees; Shovel and substratum Ploughs; superior Caststeel Axes; Mattocks; Picks and Grubbing Hoes; superior Oil Stones and Points, and Heels, of all sizes for Davis' Patent Ploughs, always on hand Blacksmith work and repairs done at short notice and at customary prices. The subscriber intends keeping no article for sale in his line, but such as will give satisfaction.

Orders received for Fruit Trees from Gray's Nursery. All orders received by mail (post paid,) will receive due attention. JONA. S. EASTMAN,
No. 36 Pratt-st., opposite Marriott & Warfield's hotel.

ALMANAC.

1829. JANUARY.	Sun. Rises. H.	M.	Sun. Sets. H.	M.	Length of days. H.	M.	Moon Rises. H.	M.
Saturday,...... 24	7	6	4	54	9	48	9	34
Sunday,........ 25	7	6	4	54	9	48	10	30
Monday,....... 26	7	5	4	55	9	50	11	27
Tuesday,...... 27	7	4	4	56	9	52	morning	
Wednesday,.. 28	7	3	4	57	9	54	0	25
Thursday,..... 29	7	2	4	58	9	56	1	25
Friday,......... 30	7	1	4	59	9	58	2	25

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, Scrubs, ground leafs, $5.00 a 10.00—seconds, ordinary, 3.50 a 4.50—red, 4.50 a 6.50—fine red, 6.00 a 8.00, for wrapping—Ohio, common, 5.00 a 8.50—good red, 6.00 a 8.00—yellow, 10.00 a 16.00—Rappahannock, 2.50 a 3.50—Kentucky, common 3.50 a 5.00—wrapping, 4.00 a 6.00.

Flour—white wheat family, $10.00 a 10.50—super. Howard-st. (sales) 8 50; city mills, 8.00 a 8.25; Susquehanna, 8.00—Corn Meal, per bbl. 2.75—Grain, best red wheat, 1.70 a 1.80—best white wheat, 1.80 a 2.00—ordinary to good, 1.50 a 1.70--Corn, old, .48—new corn, .46 a .48—in ear, per bbl. 2.25—Rye, bush. .50 a .55—Oats bush. .26 a .28—Beans 1.25—Peas .55 a .60—Clover seed, 4.50 a 5.00—Timothy, 1.50 a 1.75—Orchard Grass 2.25 a 2.50—Herd's, .75 a 1.00—Lucerne 37½ a .50 lb.—Barley, .55 a 60—Flaxseed, 1.00—Cotton, Virginia, .10 a .11—Lou. .13—Alabama, .10 a .11 Mississippi .11 a .13—North Carolina, .10 a .11—Georgia, .9 a .12—Whiskey, hhds 1st pf. .24—in bbls. .25 a 25½—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $225 a 230; Country, dew-rotted, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No 1, 6.25 a 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ a .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 a .8—Pork, 4.50 a 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ a 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 a 5.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Southern Agriculturist.)

ON THE RAISING OF SHEEP AND MULES

To the Citizens of Kershaw District:

It has become the duty of the Committee, under the resolutions adopted at the Anti-Tariff meeting of this district, to point out and recommend such investment of capital, and economy of the means of the agricultural classes they think judicious; and, as one that may be entered into profitably with least change of their present pursuits, as requiring the use of little other capital than labour, and as peculiarly adapted to the general condition of the farming interests of this district, they recommend the raising of sheep. They may be procured in any numbers, at low prices. Our Sand Hill woodland pastures are abundantly provided with suitable herbage, (the sheep more than any other domestic animal living on herbs and buds,) where they may remain till near Christmas—then kept at or near home, and fed, in severe weather only, on peas in the haum or shattered fodder. They may again be returned to the woodland pastures, by the middle of March, or as soon as the earliest vegetation puts forth in the spring. The peas in the haum necessary to make one bushel of shelled peas is believed, in common winters, to be equal to the support of eight or ten sheep; and it is very certain there are many flocks that maintain themselves throughout the winters, without any food but such as they procure themselves. The ordinary coverings in the farm yards are generally sufficient, but if not, low forks covered with rails in the form usual for potato houses, or houses made with corn tops, as is common among us, would answer well. A rye lot is indispensable for the ewes and lambs, and an acre of good rye would be sufficient for eight or ten ewes. The calculation each person will make, where very poor land is planted. A good rye lot should be seeded in September; October or November will do. Strong land should have two bushels to the acre. Sheep are best on upland pastures; and the rot soon yields by changing them from wet swamp to dry uplands, and feeding on fodder, peas haums, &c. The greatest obstacle to the raising of sheep, is the number of useless dogs that are kept, and therefore attention is required. Where the size of the flock permits the expense, they should always be under the eye of a shepherd, and should be penned every night, so as to obtain the benefit of their manure, which is believed to be more than equal, with moderate littering and regular removal, to the expense and trouble of their keeping. A well selected flock of sheep, well attended to, would increase fifty per cent. on their number annually, and under all the casualties they may be subject to, other than from want of ordinary care, would be still profitable. The wethers have the finest carcases, make the best mutton, and yield the most wool, and should constitute a third portion of a flock. The males should be, not exceeding one to fifty, in a large flock; and it should be an object to kill off largely, so as to keep the flock always young and thriving. The fair average produce of wool now is, one and a half to two and a half pounds to each, and it would soon be three or four pounds. The best species is thought to be the long woolled sheep, and those having large sized bodies. There are among us some of the half breed broad-tailed Tunis sheep, of which too little is yet known to speak decisively: but they are thought worthy of the trial, and are at the service of any desiring to get into the stock.

The foregoing is little more than a plain repetition of well known facts, but, like other well known facts, they need repetition to excite inquiry, and induce practice; and it is earnestly recommended, as it requires only that which is in the power of every farmer to bestow—Suppose—

1000 sheep to cost $1 50 each, - -	$1500
800 bushels of peas in the haum, equal to 100 bushels of shelled peas, at 75 cents, -	75
Pasturage that would cost nothing, but say	25
Attendance, one man and two boys over, and under the age of full work, - -	75
50 acres of rye, rent of land, seed, &c. at $3,	150
Total, - - - - - -	$1825
Produce 300 sheep at $1 50 - - -	450
3000 weight of wool, at 20 cents, - -	600
Total, - - - - - - -	$1050
Or, 300 sheep butchered, at $2, - -	600
3000 weight of wool, at 20 cents, - -	600
300 skins, at 25 cents, - - - - -	75
Total, - - - - - -	$1275

Subject to a deduction for taking to market, killing, selling, &c. Making all allowances for the difference between the calculations of the pen and the facts on the farm, it would still be profitable. There are thousands of acres of land to be procured at twenty-five cents the acre, and even that expense is not necessary. There will be sufficient lying waste, for many years, for all the purposes of those who may raise stocks.

The next subject to which your attention is called, is to the raising of mules—a subject of some importance, if you take into consideration the fact, that this district pays annually in *money* alone, between five and seven thousand dollars for mules, horses and hogs: that the Western states trade, with this state, annually, exceeding one and a half million of dollars, is chiefly in mules, horses and hogs; a trade more advantageous and more valuable to them, (as it gives a profit to the raiser of every mule, horse or hog, and is, therefore, divided among the indigent,) than the profits that are gained by the few concerned in the culture and manufacture of hemp and bagging, but very little of which has been seen in this district since the late war. But to our subject. Every mule, according to the prices paid for several years past, is worth at a year old $50, and at two years old $75—and the assertion is made without the fear of contradiction, and your experience appealed to for its correctness, that they are more suited to the climate, more hardy, and more able to bear their work than either the Spanish or the mules of the Western states. Mules are liable to as few diseases or casualties, are as easily raised, and with as little feed, as stock cattle. A brood mare will raise more provisions than will pay the rent of the land and the expense of its cultivation, and keep herself and colt well; and her colts, with ordinary plantation care, ought to pay for her in every two years. All who cannot keep more than one, will be compensated in the occasional inconvenience by the price of her colt, which is worth double a horse colt. The one is fit for work at two years, the other at four years; one is not hardy and requires feed, the other is hardy and requires none. Those who can afford it, will find it to their interest to keep many brood mares—it is only the first outlay of money which will be handsomely repaid. The conviction of the correctness of this statement has induced one of your Committee to keep several brood mares.

These statements, without being intended to be very accurate, are sufficiently so to demonstrate that our farmers ought to be engaged at once in sheep and mule raising, to increase as they find it profitable. All that is wanted is care and attention (and nothing valuable is to be acquired without them,) and it is therefore recommended by their fellow-citizens and friends,

THE COMMITTEE.

Camden, October 18, 1827.

INDIAN CORN.

J. S. Skinner, Esq.

Sir,—I discover in the American Farmer, No. 42, that Mr. A. Upshur, of Accomac county, Virginia, has made some remarks concerning a stalk of corn which grew on my land the last year. He appears to estimate in his remarks that a stalk of corn cannot attain the height of 16 feet 4 inches, and be fruitful. I do not recollect at this time the size and dimensions of the ear which grew on the stalk, but I am confident that there was a good large ear of corn, which was very little inferior, in point of size, to that of Mr. Upshur's. I discover that Mr. Upshur has challenged the states of Maryland and Virginia to produce a larger ear of corn than the one which he has deposited in the office of the American Farmer, for public inspection. As you are made umpire, I have three ears of corn which will surpass the one he mentions with all ease.—The largest ear contains 28 rows around its surface, 48 grains deep, and is 10 inches in circumference; which makes 1344 grains. The second ear contains 32 rows and 38 grains deep; which makes 1216 grains. The third ear contains 20 rows and 60 grains deep; which makes 1200 grains. I must acknowledge that Mr. Upshur's ear is very respectable; but I do assure him that it is very common to see ears of corn which are much larger than the one he mentions, in my crop of corn. The ears which I have described were selected from my crib after I saw the letter of Mr. Upshur. This kind of corn is not generally cultivated in this section of country. It was first introduced here by my brother, George W. Jeffreys. A spoonful of the seed was sent to him by the late Col. J. Taylor, of Caroline county, Virginia, and he had a very exalted opinion of it, on account of its great size and product. It has a remarkably large cob; and it is generally admitted by all those that ever cultivated it, that it will yield more to the acre than any corn ever cultivated in this section of country. I am of the opinion it will not suit a more northern climate. When it was first introduced into this section of country, we found it was rather late; but I am fully convinced that it is at least three weeks earlier than when I first began to cultivate it. It has become mixed, somewhat, with our native corn, and I consider it more valuable than when it was first introduced.

It is an invariable rule with me when I am housing my crop of corn in the fall, to select the largest, finest, and best filled ears which I can find. A person that will pursue this plan, may always keep his stock pure, and it will never degenerate. In seeding my crop, I never use more than half of the ear. The smaller end is invariably laid aside; the larger end is generally used, and it is always well filled. I have no doubt that any person may, in a few years, raise his crop of corn to a state of perfection by pursuing the above plan; and it will be sanctioned by every person that ever made the experiment. In the conclusion of my letter I will merely state, that my crop was not as good the last year as it was in 1827; and I do assure you the ears which I have selected to send you are not as large and well filled, on the account of severe drought which took place about the time my crop was making itself, as it was the year preceding. I have selected a number of ears which are larger than the one Mr. Upshur has deposited with you, and I shall send them by the first conveyance that offers, to my friend in Richmond, with instructions to ship the barrel to you.

Very respectfully yours,

JAS. W. JEFFREYS.

EXTRAORDINARY COWS.

Importation from Switzerland recommended.

Dear Sir, *December* 8, 1828.

In the 7th vol. American Farmer, page 354, under the head of "Extraordinary Cows," is contained the following notice, which appears to have been copied from the Pensacola Gazette. "Sir, in your gazette of the 26th November last, we see that at the Worcester cattle show, the Governor of Massachusetts has offered for exhibition a cow, which has often given 27 quarts. When visiting the *Chalais of Gruyere* in Switzerland, thirty years ago, I have there seen numerous herds of cows, which yielded from 60 to 64 quarts of excellent milk each, every day. Some time after, when visiting the establishment of Mr. Chabert, the director of the veterinary school at Alfort, I saw the same species of animal affording, upon a soil far inferior to the former, as much as three buckets or 12 gallons of milk, and never less than 8 gallons every day." Now, admiting these facts to be true; and that they are so, there seems to be no reason to doubt, is it not rather astonishing that our gentlemen farmers, to the north and east, should go to so much trouble and expense to get cows from England, that will not give the half of this quantity of milk, when with no more trouble, and probably at much less expense, they might import from Switzerland such cows as are mentioned above? For a bull and two heifers, bought of Mr. Champion and imported in the fall of 1824, Gen. Van Rensselaer gave about $1200, including all expenses. Where the Chalais of Gruyere is, I know not, as my atlas describes no such place in Switzerland. But let it be where it will, if such cows as are above mentioned, are to be had there, they could be easily driven to the coast and shipped for the United States, and would certainly cost less than many of the cattle imported from England. Although it is not quite as fashionable, perhaps, with us, as it is with the English, to take the *grand tour*, yet it is becoming more and more so every year, and it would certainly be not only highly praiseworthy, but would be rendering an essential service to their country, for our citizens, while roaming over the fertile vallies of Switzerland, to hunt up some of these "extraordinary cows," and send them on to improve the stocks of their native country. A Subscriber.

MASSACHUSETTS AGRICULTURAL SOCIETY.

OFFICIAL REPORT.

The Committee on agricultural experiments, in addition to their report made on the 15th day of October last, ask leave to submit the following:

That the Society's premium of twenty dollars be allowed and paid to Mr. Paul Adams, of Newbury, for the greatest quantity of winter rye raised on one acre, being thirty-eight bushels and five quarts. Mr. Adams makes the following statement: "The soil on which the above crop grew, is a yellow loam upon a gravel bottom, in 1827 was planted with Indian corn, and manured with about six loads of compost manure, spread on and ploughed in. The said compost was made in the barn yard, from the droppings of the cattle, marsh sods, salt, hay, &c. trodden and pulverized by the cattle. As I have been in the habit of growing rye, and manured with the like kind of dressings for a number of years, and have uniformly had good crops, some of them exceeding in quantity the last, it has suggested to me that the saline matter which was contained in the manure, did not help the same. The seed was hoed in the last hoeing of the corn, in August. 1827, about five pecks to the acre; harvested in July, 1828, and threshed two or three weeks after; and there were thirty-eight bushels and five quarts."

Josiah Bass, Esq., of Quincy, raised the past season, on one acre and forty-two rods, thirty-four bushels and three pecks of winter rye.

Two communications on the subject of destroying the bee moth were received by your committee: one of them from Mr. D. Chandler, of South Hadley, in the county of Hampshire; and the other, a long and learned dissertation from Dr. James Thatcher, of Plymouth, author of the American Orchardist. Dr. Thatcher recommends several methods of destroying this insidious and powerful enemy, which has of late years infested the dwellings of one of the most useful and interesting animals with which bountiful Providence has supplied us. Your committee recommend that both these communications be inserted in the Massachusetts Agricultural Journal. They will afford valuable information to those farmers, and others, who usually keep bees, and may possibly elicit some further useful observations on this not unimportant subject. Mr. Chandler does not hesitate to pronounce his method of preventing the ravages of the bee moth as a sovereign remedy; one that may with full confidence be relied upon. Dr. Thatcher, it will be seen, expresses some doubts as to Mr. Chandler's method, and closes his dissertation with recommending that the hives be deposited in a building to be provided for the express purpose of covering them, leaving openings to admit of the egress and ingress of the bees, whilst employed in collecting their winter stores; which aperture may be closed at night during the moth season. Your committee, not being themselves fully satisfied that the very best method of destroying the bee moth has as yet been discovered, and therefore are not prepared to say that the communication of either gentleman conveys a new and decided preventive against the ravages of that insect, and such as create a sufficient claim for the premium. But both communications contain valuable hints, and appear to be the result of accurate experiment and industrious investigation.

Which is respectfully submitted.

THOMAS L. WINTHROP,
BENJAMIN GUILD, } *Committee.*
JOHN C. GRAY.

Boston, January 10, 1828.

NATURAL FORMATION OF SOIL.

Nothing can be more truly beautiful in itself or more deeply interesting to a reflecting mind, than the process by which nature constantly produces an accession of soil and accumulation of vegetable matter to render it fertile. The process is varied so as to be exactly adapted to overcome the obstacles which the circumstances of each particular district present; but, although the means employed are infinitely various, the final result is always the same. When the surface of a rock, for instance, becomes first exposed to the atmosphere, it is at once attacked by agents which operate mechanically and chemically. Light calls into activity the latent heat; the pores become, by that means, sufficiently enlarged to admit particles of moisture, which gradually abrade the surface and produce inequalities; upon these inequalities, the seeds of lichens are deposited by the atmosphere; these fore-runners of vegetation take root, and the fibres by which some sorts of these diminutive plants adhere to the rock, concoct a vegetable acid peculiarly adapted to corrode the substance with which it comes in contact, and increase the inequalities which heat and moisture had already formed. These diminutive plants decay and perish; when decomposed, they form a vegetable bed, united to the production of larger plants; or when the surface of the rocks happens to present clefts or natural crevices, they fall into them; and there mingling with fine particles of sand, conveyed thither by the atmosphere, or crumbled by the action of the air from the internal surfaces of the crevices themselves, they form fertile mould. Nature, having advanced thus far in her preparations, makes another forward step; she sows the soil which has been created by the decomposition of vegetable matter with some of the more perfect plants, which it has now become capable of sustaining. These continue to be produced and decomposed until a soil has been prepared of sufficient depth and richness to bear plants of still higher quality and larger dimensions. The process of nature acquires accelerated force as it advances towards its consummation.

When a sufficient depth of soil has been formed to produce ferns, for instance, these annually decay and die; their decomposed materials gradually form little conical heaps of vegetable mould round on the spot on which each plant grew. When this has gone on for a period of sufficient length to spread these cones over a given surface, nature takes another stride; she sows furze, thorns and briars, which thrive luxuriantly, and by annually shedding their leaves, contributes, in the end, to add greatly to both the depth and fertility of the mould. This species constitutes in truth, the means which nature principally uses in preparing a bed for the growth of the more valuable trees. It is well known that these are the plants which make their appearance in fallows, or in woods which have been recently cut down. Into the centre of a tuft of brambles is accidently carried the seed of the majestic oak. Meeting with a congenial soil, it soon vegetates; it is carefully and effectually cherished and protected by its prickly defence against all the injuries from the bite of the animals which roam over the waste. The larger trees having reached a height and size which render shelter unnecessary, destroy their early nurses and protectors, by robbing them of their light and air, indispensable for their well-being. The thorny plants then retire to the out-skirts of the forest, where, in the enjoyment of an abundant supply of light and sun, they continue gradually to extend the empire of their superiors; and make encroachments upon the plain, until the whole district becomes at length covered with magnificent trees. The roots of the largest trees penetrate the soil in all directions; they even find their way into the crevices of the rocks, filled as these are already with decomposed vegetable matter; here they swell and contract, as the heat and moisture increase or diminish.—They act like true lovers, until they gradually pulverize the earthy materials which they have been able to penetrate.

While the roots are thus busy under ground, boring, undermining, cleaving, and crumbling every thing that impedes their progress, the branches and leaves are equally indefatigable overhead. They arrest the volatile particles of vegetable food which float in the atmosphere. Thus fed and sustained, each tree not only increases annually in size, but produces and deposits a crop of fruit and leaves. The fruit becomes the food of animals, or is carried into a spot where it can produce a plant; the leaves fall around the tree, where they become gradually decomposed, and in the lapse of ages make a vast addition to the depth of the vegetable world; and whilst the decompositions of vegetables make a gradual addition to the depth of the cultivatable soil, another cause, equally constant in operation, continues to increase its fertility; the produce of the minutest plant serves to subsist myriads of insects; after a brief existence, these perish and decay; the decomposed particles greatly fertilize the vegetable matter with which they happen to mingle. The period at length arrives when the timber, having reached its highest measure of growth and perfection, may be cut down, in order that the husbandman may enter upon the inheritance prepared for him by the hand of the all-wise and all-benevolent Author of his existence. Such is the system which they that have eyes to see may see. Plants which appear worthless in themselves—those lichens, mos-

in their power, by aiding all the difficulties which selfish or malevolent characters might throw in your way; for besides a reduction in the rate of transit on rail-roads, beyond all anticipation; our turnpikes are now so relieved from heavy carriage, that several of them are become reduced nearly one-half in the charge of their tolls, that whoever stirs a stage from home, partakes of the universal benefit.

In a conversation the other day it was observed by the intelligent Lord D****, I wish I had a rail-way through the centre of every estate I have in the kingdom—there is one comes through my estate near F***, the quietness with which the wagons go, and keeping steadily in one line, makes no noise or confusion, and the highways are in such excellent condition, by being freed of carrying and interruption; travelling on them is most pleasant and agreeable."

The following summary view of the superior advantages which Railways possess, when compared with Canals, is extracted from an able paper, originally published in the Boston Patriot, by a writer with the signature "*Middlesex.*"

The Railway requires but one third the quantity of land that is required for a Canal, exclusive of ponds, reservoirs, and feeders.

The Railway requires one man and four horses to transport fifty tons four miles per hour.

The Canal requires two men, one boy and two horses to transport thirty tons two miles per hour.

The Railway may be attended and kept in repair for one tenth that of a Canal.

Railways give the greatest possible facility to travellers, Canals retard them.

Railways may be easily passed in all places required, Canals only by bridges.

Railways interfere with no water privileges, Canals destroy many.

Railways are subject to no interruptions; except by snow which is easily removed.

Canals are subject to be interrupted by droughts, flood, frosts, leakages and locks.

Railways carry their freight to the doors of the warehouses, Canals deliver their freight upon the wharf.

A Railway can be constructed for half the cost of a Canal per mile.

A Railway may be used twelve months in a year, a Canal but seven months.

The toll of passengers will pay the interest on the cost of a Railway.

The toll of passengers on a Canal is very trifling. Half the common rates of tolls on a Canal will be sufficient to pay the whole expense of transportation on a Railway, including the toll.

Mountainous countries are easily surmounted by Railways, Canals can never get over them.

Rivers and streams are much more easily passed by Railways than they can be by Canals.

Railways will be the pride of New England; they will unite its inhabitants in one common centre, connect them in one common interest, and raise them to eminence and glory by one common operation.

[*N. E. Farmer.*

LADIES' DEPARTMENT.

THE MOTHER.

* * * The deep-toned clock strikes steadily its midnight warning to the yet sleepless portion of mankind. The wakeful gambler chides his rapid movements, not, that the fleeting hours pass swiftly as the future witnesses of mis-spent time. The guilty conscience goaded by busy memory, starts at the solemn sound, that of time gone by, and time to come, when all the hidden actions of mankind shall be revealed.—The lonely bookman, wrapt in studious contemplation, heeds not its striking, whilst merely care and solitary grief listen with varied feelings to the tolling of the midnight clock.—The anxious mother watching with tearful eyes the sickly couch of infant loveliness,—shrinks at these hollow sounds which mark, in fancy's fears, the living for the house of death.

I saw her large blue eyes swell with maternal tenderness, as she gazed in all the plenitude of a mother's love, upon the painful countenance of her silently imploring child. I saw her bursting bosom heave with agonizing fear, as she gently pressed its little outstretched hand between her own and bathed it with her tears. I saw her unwearied care anticipate her infant's wants untold by words, but eloquently told by an infantile look, and intuitively comprehended by a Mother's love; and when her little sufferer slumbered, I saw a Mother's care command a Mother's grief, and, half respiring, check the rising sobbings of her soul, lest a full sigh should wake her sleeping babe. It was then that busy memory gave to her present pain a heightened anguish, and shrouded in gloomy bodements the endearing pratlings of her child, its smiles of timid triumph, as once its tottering feet bore it from chair to chair, its suppliant hands seeking maternal safety, when, like a feeble bird, the young essayist panted to calm its causeless fears upon a mother's bosom; that sacred fountain for its comfort and support. These, and a thousand other fond endearments, rushed on her mind, and like a transient light in some dark solitude, made misery more poignant. The remembrance of hours, spent in the society of her child, gradually developing its bodily and mental powers, imparted a saddened pleasure to its maternal nurse; when, suddenly, a feeble groan dissolved her vision, for the vital taper of her child was sinking in its socket. Her stifled sighs now burst in convulsive sobbings from her bosom, whilst with unutterable anguish her laboring soul gave the pure spirit of her child to God.—Hers was a grief, which mothers only feel—an affliction, which subdued her patient nature more than the agonizing throes, which gave a mortal existence to her infant.—I sincerely participated in her afflictions, and was silent in this scene of woe, as I was unwilling to interrupt the sacred tribute of her grief, or unclasp that firm embrace, which pressed a lifeless infant to a Mother's bosom, for soon it would be cradled in its coffin, and hushed in the lonely mansion of the grave, over which the winds of winter would howl its lullaby. I thought as I witnessed her conflicting feeling, how kindly Providence had implanted in a mother's bosom, that persevering love, which enabled her to bear with unrepining fortitude, the varied cares connected with our childhood,—and, that those men are monstrous, who repay with cold indifference the affectionate solicitude, that guarded their years of helpless infancy: I felt a glow within my bosom, a filial offering to the memory of my Mother, with a repentant sigh, lest my thoughtless boyhood may have given her pain unconscious of the sacred debt of gratitude, due to the feelings of a Parent.

[*N. B. Courier.*

PETER PINDAR.

FOR THE SCHOOL BOY LEARNING LATIN.

When this eccentric genius was at Truro School, he had given to him, by Dr. Polwhele, well known by his various publications, the following beautiful Latin Epigram upon Sleep, to translate into English, as an evening exercise:

> "Somne levis quanquam certissima mortis imago
> Consortem cupio te tamen esse tori;
> Alma quies, optata veni; nam, sic sine vitâ
> Vivere, quam suave est; sic, sine morte, mori."

In a few minutes the boy produced the following version:

> "Come gentle sleep, attend thy votary's prayer,
> And, tho' Death's image, to my couch repair:
> How sweet, tho' lifeless, yet with life to lie,
> And without dying, oh how sweet to die!"

SPORTING OLIO.

GRAND TROTTING MATCH.

A trotting match, which excited considerable interest, took place on Thursday on the Bridgeton road, between a roan horse, the property of a well known sporting character, residing in the Kent-road, and a brown horse, said to be an American, fourteen hands high, the property of a gentleman residing at Deptford. The distance to be performed was fifty miles, and the amount of the stakes 50*l.* a side. The match was made suddenly, at the Green Man, in the Kent-road, a short time back, and it was agreed that the roan horse should be driven by a Mr. B., in the same match cart in which the 28 miles were recently performed in two hours, over Sunbury Common; while the Deptford gentleman should drive his horse in a light gig then standing at the door, and nearly double the weight of the match-cart. At first, such was the confidence in the roan horse, that sixty to forty was freely offered in his behalf; but a whisper having gone forth that the brown horse was an "out-and-outer," betting fell off, and little or nothing was done, the backers of the roan horse apprehending that they had "caught a tartar," and the owner of the brown horse feeling no inclination to "take the lead" in laying odds, however anxious he might be "to take the lead" in the match. On Wednesday evening both horses were on the road, it having been agreed that the start should take place from the eleventh mile-stone beyond Croydon, to the thirty-sixth mile-stone on the Hixted-road, towards Brighton, and back, making the fifty miles. The roan horse was lodged for the night at Mr. Pearce's, at Smitham-bottom; while the brown horse was placed in the neighbourhood of the Derby Arms, at Croydon, where his owner took up his quarters. Eight o'clock A. M. was appointed for the start, and at that time both horses, in their respective machines, appeared at the given spot, attended by their respective umpires; Mr. Morton, jun., of the Derby Arms, who had horses placed on the road, acting for the owner of the brown horse, and a gentleman, whose name we could not ascertain, acting for the roan horse. On comparing the horses as well as the machines, and we might add the drivers (we mean no disrespect to the owner of the brown horse), every thing seemed in favour of the roan, which was full of life and activity, and in fine condition. The driver, Mr. B., was clad in a short jacket for the occasion, and the machine and harness were of the lightest description, weighing altogether little more than one hundred weight. The brown horse, on the contrary, had a sluggish appearance; and his owner, by whom he was driven, came to the ground with his groom beside him, in his machine, which was little, of any thing, short of two hundred weight, dressed in ordinary attire, rather as if he were going on a common-place journey than if a trial of speed were in contemplation. By some persuasion he divested himself of his great coat and cloak, and at eight minutes after eight o'clock the word "start" was given—the roan horse taking the lead at a spanking pace, and the brown horse close in his wake, evidently waiting upon him. At this time a mizzling rain had commenced, which increased throughout the day, and continued to fall without intermission till long after the match was concluded. Independent of the umpires, several horsemen accompanied the charioteers; and in viewing the latter, it was impossible not to give the palm, in point of appearance to the general "set out" of the roan horse. On close investigation, however, the good judges could not withhold their approbation of the style in which the brown horse did his work; and although there was something eccentric in the manner of his driver, still it was manifest he was alive to the arduous task he had to perform. He patiently followed the roan, but it was clear with difficulty held in his prad, which pulled with almost irresistible force, although withheld by a double power on his reins from a spring loop fixed to the shafts. It had been resolved to try the pluck of the brown horse at starting, and therefore the pace was severe. Notwithstanding the state of the roads, which were sandy and hilly, and rendered more than usually heavy by the falling rain, the first eight miles were done in 39 minutes—and in 61 minutes twelve miles and a half were completed. At this rate both horses continued to the 36th mile-stone, completing their 25 miles in one hour and fifty-four minutes. The roan horse first made the turn, and appeared rather fagged from the pace at which he had been driven; his driver, however, was fresh, although drenched to the skin with the rain. The brown horse was also fresh, and pulled with unabated force, evidently exhausting his driver, by the effort which was necessary to keep him in. They now both slackened pace, and appeared desirous of pulling up. The driver of the brown horse seeing his opponent lessen his pace, pushed forward and took the lead about Hand-cross (33½ miles from London), after which he pulled up, his example being followed by the roan horse, which was stopped likewise, and had some gruel. The brown horse took a little water, and was sponged effectually by Mr. Moreton, while his driver was refreshed by a glass of brandy and water, which, from the continued rain, added to the press on his reins, became absolutely necessary. About five minutes were occupied in this manner, when the brown horse was again started at a rapid pace, and was immediately followed by the roan. The brown horse having got the lead, however, kept it at a steady rate, and would not let the roan pass. Indeed, we should say, the brown horse was urged to unnecessary speed, from a false alarm which was occasionally given to the driver that his opponent was close behind; when, in fact, he was not within some distance of his wheels.

On coming up Red hill, the roan was dead beat, and the brown horse pursued his course, evidently fatigued, to the end of his journey, at about the rate of seven miles an hour—finally performing the whole fifty miles without drawing bit, in the unprecedented time of four hours and some seconds less than twenty-one minutes, amidst the cheers of his friends. His owner was a good deal exhausted from fatigue in curbing his horse, as well as from the severity of the weather, but he was still in good spirits; and, at the suggestion of his friends, to avoid wrangle, turned his horse round, and went back to the eleventh mile-stone, after having passed it several yards. The horse had manifestly done enough; but still he went with firmness, and was subsequently walked to the Derby Arms, a distance of nearly two miles, where he was bled, had some warm gruel, and in a short time, like *Richard*, was "himself again," eating his hay with a good appetite. His owner was driven home in a gig, and having changed his dress, being drenched to the skin, appeared highly elated by his success. The roan horse was so completely knocked up, that for the latter part of the journey he could not be got out of a walk, and was pulled up at Smitham Bottom, two miles from the winning goal, where he was also bled, and every attention paid to his condition. Mr. B, his driver, was "hard up," but with proper restorative was soon "all right." It was considered by the best judges, of whom there were many on the road, that had the brown horse been in a lighter machine, and in proper condition, for he had had no training, he would, on a more favourable road, have performed the distance in four hours—thus far eclipsing any attempt of a similar nature. Great praise is due to the skill and attention of Mr. Moreton, jun. on the road, who, with proper changes, rode the whole distance, and never neglected either horse or driver. Had the qualities of the brown horse been kept more secret, or had he fallen into the hands of the "knowing ones," he would have proved a mine of wealth. The hands of his driver were dreadfulfully blistered from his efforts, in spite of the double purchase, to hold him in, at the commencement of the journey. The roan horse broke once, soon after the turn of the twenty-five miles, and was backed to the spot where the break commenced. There was no dispute throughout, and the losing party submitted without grumbling—upon the whole congratulating themselves it was no worse. Part of the road, our readers are aware, especially up Red hill, was very heavy and sandy, and it was here the roan horse suddenly fell off to a walk, although in coming down the hill he came away at thirteen miles an hour.

Grand Trotting Match.—The final deposit for the match against time, to trot forty miles, in three hours, is to be made good on Tuesday next, at Mr. Pledger's, Moorgate, after a sporting "tuck-out." All the amateurs of "fast going" in the Metropolis are expected to be present, and long odds are expected to be laid against the performance.

A grand trotting match was made for three hundred pounds aside, horse against horse, to come off, at Newmarket, in the course of the week. The distance twelve miles. One of the horses has been training at Smitham-bottom.

It is said, that the great match to York, for 2,000 guineas, is undertaken by Mr. Ridsdale, who will ride himself. It is also said, that he will have about forty horses. The match comes off in April.

MISCELLANEOUS.

THE SILK TRADE OF ENGLAND.

Considerable negotiations have been carrying on of late between the silk manufacturers, (particularly those of the metropolis,) and the Board of Trade, at Whitehall, upon the depressed state of their manufacture, owing, as they say, to the new measures of Mr. Huskisson. The subject is, we know, a complicated one; and we prefer giving to our readers the means of forming their own judgment, upon a perusal of facts, than of leading them to any particular conclusions from mere speculative or theoretical arguments. The value of manufactured silk exported in the year 1823, the year before the change of system, was 181,000*l.*; it fell progressively—in 1824, to 159,000*l.*; in 1825, to 150,000*l.*; in 1826 (after the panic,) 106,000*l.*; in 1827, it rose to 161,000*l.*, just 20,000*l.* short of the year 1823. The increase in the importation of raw silk, entered for home consumption, during the years above referred to, was as follows, taken in pounds, and in round numbers:

1823	(before the change) -	l2,432,000
1824	(year of the change) -	3,993,000
1825	(year of cotton bubble) -	3,589,000
1826	(year of universal re-action)	2,244,000
1827	(year of recovery) -	4,209,000

Now, compare the quantity entered last year for home consumption, with that of the year before the new law took place, and see what is the difference in pounds avoirdupois, and next in pounds sterling: The increase in pounds of raw silk is above 1,770,000. Taking each pound of raw silk at 16s., will give us, for the increased value of the raw material only, imported for home consumption, above 1,400,000*l.*

[*London paper.*

CARRIAGE WHEELS.

Extract from the description of an improvement in four wheel Carriages, as patented by Theodore Brooks and Daniel W. Eames, of Rutland, Jefferson County, New York, December 6th, 1828.

The improvement consists in suspending the body of the carriage below the axletree, and as near the ground as the state of the roads will admit of. The wheels, axletrees, and pole to be made in common form. Then a frame work, composed of three sills, with slats or cross-bars of sufficient length and width to contain such load as the carriage is intended for conveying, is to be bolted firm to the under side of the hind axletree; the middle sill which must be sufficiently large to sustain the whole load, extends forward of the forward cross sill far enough to admit the wheel to turn to the centre of the body, and is attached to the forward axletree by the ring bolt being fastened thereto in the form of a snibill, and keyed or screwed on the upper side of the axletree—the lower side of this frame should be boarded or planked, so as to prevent injury when running aground. This frame supplies the place of reaches, and on which such box or body may be erected as convenience requires. For the convenience of loading stone or other heavy articles, a pole of sufficient size is to be fastened with a snibill to each corner of the body or frame, and rising seven or eight feet, and fastened near together at the top, where a pully block is to be hung, the fall rope, winding on a horizontal shaft hung on the two forward poles, and turned with a crank.

METEOROLOGY.

Sandy Spring, Montgomery county, Md.
J. S. Skinner, Esq. *January 3, 1829.*

Sir,—Enclosed are two tables of the mean temperature of water and air, taken at this place for December, 1828. In the observations on water, I have used the same series of wells and fountains (omitting two wells,) from which my former tables were constructed.

Table No. 1:

Of the temperature of Springs and Wells in the vicinity of, and including Sandy Spring, &c. (See American Farmer, No. 40, vol. 10, p. 318.)

Sandy Spring, on the farm of Edwd. Stabler,		52°
Spring on do. do.	No. 2,	53
Do. do. do.	No. 3,	54
Caleb Bentley's spring,		54½
Wm. Henry Stabler's well,		52
James P. Stabler's well,		51
Roger Brooke's well,		47
Do. spring,	No. 1,	50½
Do spring,	No. 2,	49
Do. spring,	No. 3,	53
Hannah Brigg's well,		49
Mahlon Chandlee's spring,	No. 1,	53½
Do. spring,	No. 2,	54
Wm. Darby's spring,		46
Edward Porter's spring,		52½
Basil Brooke's well,		45
	Mean,	53.06

Remarks.—The temperature of the fountains and wells in the preceding table, was observed on January 1st and 3d. The mean aerial temperature of the former day 37.66°, and of the latter 15½° Fahrenheit. The mean temperature of both days, and that of the 2d, all taken together, 27.22°. The result giving a depression in the mean aquatic temperature for the month of December, below that of November, of 1 and 2-3°. On the 2d, was a fall of snow five inches in depth.

ses, heaths, ferns, furze, briars and brooms, in which *economists*, forsooth, perceive only the symbols of eternal barrenness—are so many instruments employed by Perfect Wisdom in fertilizing new districts for the occupation of future generations of mankind. [*Quarterly Review.*

BRIGHTON CATTLE MARKET.

We have received from an obliging correspondent, the following view of this great market, from the 29th September, to the 1st of December.

SOLD AT BRIGHTON.

1828.		*Cattle*	*Sheep*	*Swine.*
September	29,	1750	4000	1000
October	6,	1374	4257	1227
"	13,	1660	2062	200
"	20,	1500	4000	400
"	27,	2300	5172	100
November	3,	3054	4400	2000
"	10,	3008	4500	600
"	17,	3500	4000	700
"	24,	2200	3000	1000
December	1,	1200	4000	900
		21,546	39,391	8127

AGGREGATES.

21,546	Cattle, average value	$25 each,	$538,950
39,391	Sheep, " "	$1,50 do.	59,086
8,127	Swine, " "	$4,00 do.	32,508
69,064		Total	630,544

Our correspondent adds,—"The cattle have been unusually large and good, exceeding that of any former season." [*Boston Cent.*

POTATOES.

Mode of growing early Potatoes in the North of Lancashire.

Put the potatoes in a room, or other convenient warm place; about the 2d of February, cover them with a woollen cloth for about four weeks, then take it off, and by so doing you will make the sprouts much stronger. Towards the latter end of March set them, covering the sprouts about two inches deep. If the sprouts be about two inches long when set, the potatoes will be ready in seven or eight weeks afterwards. A gentleman who had a green-house, adopted the following plan: He placed the potatoes in the green-house in turf mould or peat earth, in the beginning of February, and kept them well moistened with water; he planted them in the open air about the end of March, on a warm border, leaving about half an inch of the points of the sprouts above the ground, and protected them during nights by coverings of mats. By this plan he was able to have new potatoes about the beginning of May. It is considered a very material thing to get the potatoes well sprouted before they are planted.

FEEDING CATTLE.

An English writer observes, that two great points in feeding cattle are regularity and a particular care of the weaker individuals. On this last account there ought to be plenty of trough or rack room, that too many may not feed together; in which very common case the weaker are not only trampled down by the stronger, but they are worried, and become cowed and spiritless; than which there cannot be a more unfavourable state for thrift; besides, these are ever compelled to shift with the worst of the fodder. This domineering spirit is so remarkably prevalent among horned cattle, that the writer has a hundred times observed the master beasts running from crib to crib, and absolutely neglecting their own provender for the sake of driving the inferior from theirs. This is, much oftener than suspected, the chief reason of that difference in a lot of beasts, after a winter's keep. It is likewise, he says, a very common and very shameful sight, in a dairy of cows, to see several of them gored and wounded in a dozen places, merely from the inattention of the owner, and the neglect of clipping the horns of those that bott.—The weaker animals should be kept apart; and in crib feeding in the yard, it is a good method to tie up the master beasts at their meals.

Dr. Deane says, "there should be more yards than one to a barn, where divers sorts of cattle are kept. The sheep should have a yard by themselves at least; and the young stock another, that they may be wholly confined to such fodder as the farmer can afford them."

HORTICULTURE.

KITCHEN GARDEN—FEBRUARY.

A great deal of attention is due to the kitchen garden this month, it being the commencement of the early efforts of vegetation. Preparation must be made of all vacant ground, by dunging, digging, and trenching it; and making it in proper order, ready for sowing and planting with early and main crops; not only for the succeeding months, but the general supply of the year. Dung and manure those parts of the ground most wanting, and for particular crops; such as cabbages, cauliflowers, onions, leeks, artichokes, asparagus, and other principal articles.

Sow early crops on south borders, and some main crops in the open quarters, such as radishes, peas, beans, spinach lettuce, onions, leeks, cabbages, carrots, parsnips, beets, coleworts, savoys, brocoli, small sallading, parsley, chervil, borage, fennel, dill, marigolds, burnet, clary, angelica, corn-sallad, cresses, mustard, rape, &c.

Sow full crops of peas at the beginning and towards the latter end of the month, of the best bearers, and such as are most esteemed. Also beans of different sorts, in rows, a yard distant from each other. Sow cauliflower seeds in a hot-bed, or in a warm border, or under a frame, to plant out in April or May, to succeed the winter plants:

If the weather is mild, begin sowing the first main crop of carrots in an open situation, in light rich ground, trenched two spades deep, scatter the seed moderately thin, and rake it in regularly. Sow also parsnips, onions, leeks, beet, and spinach.

Transplant some of the strongest cabbage-plants into an open quarter of good ground, in rows, one, two, and three feet distant, to cut young, and at half and full growth. Plant cabbage plants of the sugar loaf and early kinds, in rows a foot distant. Also Jerusalem artichokes in open ground, by cuttings of the roots, in rows two feet and a half asunder.

Some parsley for a main crop, both of the plain and curled leaved sorts, either in a single drill, along the edge of borders or quarters, or in continued drills eight or nine inches asunder. Sow fennel either in drills a foot distance, or on the surface, and rake it in even, both for transplanting, and to remain where sowed.

In order to produce sprouts, plant stalks of cabbage, savoys, purple brocoli, and others of the cabbage tribe.

Give air to plants in hot-beds, as also to those under frames and glasses, by either tilting the glasses two or three inches, or on mid dry days, drawing them up or down half way, or occasionally remove them entirely; but put them on again towards night.

SEED.

Sir, *West Chester, Pa., Jan. 19, 1829.*

In compliance with your request, and as in duty bound, I now report to you the result of my trials of the *seeds* you favoured me with the past season. Having been in a good degree anticipated by the communication of your correspondent at Columbia, in this state, (published in the American Farmer of the 24th October last,) I shall be as brief as possible. The *Spanish Beans* and *Prussian Peas* did well, and proved to be of good quality; though I am not aware that they are superior to the varieties in common use with us. The *Nankin Cotton* seeds were planted on the 24th of April. Several of them vegetated, and before frost I had a number of good bolls, or capsules, sufficiently matured. So large a portion of them, however, were caught in a green state by the frost, that I doubt whether the plant can be cultivated to advantage in this region. It would at least require a considerable time before it would be sufficiently acclimated to become profitable. My trials of the *Quinur* seeds, from Peru, were equally unsuccessful as those of your *Columbian* correspondent above mentioned. I regretted this the more, as I was anxious to ascertain the botanical characters of the plant. Should you obtain a further supply from any source, I should be glad to repeat the attempt to cultivate it. Not one of the seeds vegetated, although several of my friends, as well as myself, tried them in various ways.

The *Alfalfa* seeds, from Valparaiso, which Com. Jones seemed to think might be the *Trifolium alpestre*, or narrow-leaved trefoil, is nothing more than the common *lucerne*, or *Medicago sativa*. It succeeded very well, but is not likely to supplant the *red clover*, among our farmers. One objection to the culture of it is, that it rarely perfects its seeds in this region. As to its value in *soiling*, suggested by you, however advantageous that practice may be in certain cases, I incline to think it will rarely be adopted to any extent by the farmers here. They prefer to have their cattle in the fields, where they can select the herbage for themselves, in all its alluring freshness. The saving of labour is also a material object on our farms, where there is so much to be done, and frequently none but the farmer and his sons to do it.

Very respectfully, your most obed't,

J. S. Skinner, Esq, W. D.

THE ROSE.

A monograph of the Rose tribe has just appeared in Paris. Its disposition follows the method of our celebrated botanist Lindley, and indicates not only the habitation of the different species, but the periods at which they were respectively introduced into French and English gardens. The author, M. Desportes, reduces to eleven genera the seventy-nine species of Rose that have been hitherto recognized, throwing into an appendix eleven doubtful ones with their several varieties. There are 2533 varieties acknowledged to exist, of which 18 belong to the Moss Rose, 20 to the Dog Rose, and 1815 to the Province: so that its varieties alone are sufficient to stock the largest garden.

Means of Destroying Wire Worms.

In an article in the third number of the Quarterly Journal of Agriculture, on saltpetre as manure, it is stated that "H. Crabb, Esq. of Temple Dinsley, has sown it with advantage, as late as May. On one occasion, it had a remarkable effect in killing wire worms; the barley was looking badly, and within a few days after top dressing with saltpetre, a shower came, and the wire worms died." These reptiles are great enemies to the florist, rapidly destroying his carnation and pink plants.

RURAL ECONOMY.

ON KEEPING ACCOUNTS.

Mr. Sinner, *January 2d*, 1829.

Seated by a snug country fire, surrounded by all my children, except two, who are on their studies from home; my wife with her usual industry winding yarn of superior colours, to make a carpet to exhibit at our next cattle show; one daughter making me shirts, another alternately spinning on a patent yankee wheel, and teaching my two youngest daughters music, (being detained from school by the snow, which is fast falling,) and no company, your valuable paper, of December 26, was picked up. After amusing myself with sweet potatoes, kitchen gardens, grapes, fruit trees, matrimonial rule, hounds, and horse racing, I found you "on board the magnificent steam boat Independence," contemplating, (as you usually do) on the advantages and disadvantages of farmers—I must stop, my attention is this moment called to the window, through which I see a sleigh gliding through the deep snow, with some of my young neighbours, and you know we Marylanders are fond of company.

January 6.—We have had some fine sleighing, which is unusual, (and again without company) I have taken my elbow chair, not for the purpose of securing the premium offered, as I have a regular file of your valuable Farmer from its commencement, also a copy of the Memoirs of the Pennsylvania Agricultural Society, but to correct your ideas relative to the neglect of farmers. I know several in my neighbourhood who keep regular occurrences of the year; and have the pleasure to state that I am one who do it. I can for nearly thirty years past, tell on what day of the year, month, or week, we had a snow, or hard wind, or rain; whether cold, or warm, wet or dry; what my negroes were engaged in, whether ploughing, hoeing, seeding, cutting or mowing; the number of loads of manure out each year, what kind, where deposited, the quantity of wheat seeded, sent to market, or made use of in the family, and the price; the quantity of corn and rye made, the number of hogs killed, their weights, how much used in the family, quantity sold, and to whom; of my mutton raised and killed, (here permit me to remark I sold one to a friend, who sent it to your city a short time since, weighing 104 lbs. clear of the head and feet, out of which I obtained 13¾ lbs. of rendered *gut tallow*, fed on grass alone.) I have never observed the quantity of poultry raised or sold, or how much butter is made, or milk produced, but perhaps my good wife could do that by a reference to her book. I accidentally heard her say a few days past, she had raised 150 geese, and much to my mortification a short time past, I counted 65 turkeys preying on my wheat field. As to my accounts, I keep a day book and ledger, also a cash book, by which I can tell every dollar I have received, from whom, and for what, all that has been paid, for what, and to whom. Now, sir, notwithstanding all this precaution, and frequently covering from one hundred to one hundred and fifty acres of land annually with good manure, and have good fencing, (the want of which is a cutse to farmers,) I cannot keep clear of those pests called creditors. I have thus far been so fortunate as not to have the lawyers and sheriffs dipping their fingers in my pockets, but if I happen to go from home to hear the news of the day, or hear the merits or demerits of Adams and Jackson discussed, some one is apt to give me a look as if I owed him, and your honour sometimes tips a notice in the Farmer, telling us of the safety of transmitting a five dollar note by mail. If you can advise us poor farmers how to keep clear of such breakers and quicksands, provided we do it, you will be thanked by thousands yet unborn.

An Eastern Shore Farmer.

[We are glad to find by the communication of our friend, that there *are* some who keep registers and accounts of their farming transactions—but it would have been more satisfactory to have had some details as to the manner and form of entering—these should be as simple as possible. It would be curious to see a particular account raised against these self same geese and turkies—the wheat destroyed, the corn consumed, the time taken up in their rearing, as a set off against their value or sales in the market—allowing to their credit the many that are given away to city friends; and as it happens to be within our knowledge that they are too fat to have lived on grass alone, we suspect they make heavy drafts on the granary and the corn loft, before and after harvest. But then the snug little sums of money they sell for, serves so much better than common money, to pay for caps, and bonnets, and shawls, and silk dresses, &c. Much, however, as farmers grumble about the turkies in the stack yard, and the geese in the wheat field, nothing stops their grumbling sooner, nor puts them in better humour, than when, coming in from the labours of the day, a cheerful wife and daughters smiling with affection, invite him to the dinner table, where with other good cheer, a fine *fat fowl* is presented to his view.]

(From the New York Farmer.)

MANUFACTURING AND PRESERVING BUTTER.

Butter constitutes so essential a part of our diet, that every hint which tends to improve its quality, is worthy of observation. I shall therefore make no apology for the few remarks which I am about to offer to the manufacturer and the consumer.

The quality of butter depends, essentially, upon pasture; but, particularly, upon the process of manufacturing and method of preserving.

Dry and hilly grounds give the best dairies. Although moist and alluvial pastures afford the greatest volume of herbage, the dryer grounds yield the finer varieties of grasses, and their nutricious qualities are more concentrated. Hence the reputation of Goshen butter, and of the dairies of Otsego, Delaware, &c. in this state, and of Berkshire, in Massachusetts.

I do not intend to plague your readers by a labored discussion, whether it is best to churn the *milk*, sweet or sour, or the *cream* alone; nor whether a dog churn, a sheep churn, (for I have seen a churn propelled by sheep) or a hand churn, is best. All I insist upon is, that the process shall be carried on by a regular motion, in a proper temperature, and that the milk or cream shall not be suffered to become too rancid or bitter. A thrifty housewife, who manages half a dozen cows, will never suffer the latter to happen. I will therefore suppose the process of manufacture to commence, when, to use the dairy phrase, *the butter has come*, as on the subsequent management depends materially the quality of the butter.

The rules I recommend are—thoroughly to separate the butter from the butter-milk, *without the aid of water*, or any other agent than the dairy-maid's arm and butter ladle—to have a proper quantity of pure fine salt incorporated and dissolved in the mass; to pack in stone ware jars or tight firkins, and to cover with a pure brine, sufficient wholly to exclude the air from contact with the butter, until it is wanted for use.

The *practice* I recommend; from long experience, is as follows: When the butter comes from the churn put it into a clean wooden bowl, and with a wooden butter ladle, proceed to work it, by breaking it down at the sides and turning off the whey which is separated in the process, at the same time strew on the salt by degrees, so that it becomes intimately incorporated. Continue working it thus until the butter milk is apparently all worked out. Put it then by in a cold cellar till next morning, by which time the salt is dissolved, when the ladle is to be again applied, and continued as long as any butter-milk can be separated. The butter is then fit for use or laying down. For preserving, stone ware jars are preferable, as they impart no taste to the butter, and exclude the air. Pack down the butter without any salt between the layers, and cover with two inches of strong brine, previously boiled, skimmed and suffered to become cold. If a skum should afterwards appear on the brine, which will sometimes happen in damp cellars, renew the pickle. The impurities which rise to the surface boiling, or are found in the residium at the bottom, are far greater than any one would suppose, who is not in the habit of boiling his brine for meats, butter, &c. Butter thus manufactured and cured, will keep a twelvemonth or more, perfectly sweet; and the rich delicacy of flavor imparted to that made in May and June, by the young herbage, will be in a great measure preserved. It is compact, without being too adhesive; cuts with a smooth surface, and shows neither lumps of salt, butter-milk or crumbles.

So long as the buyer will pay as much for salt and butter-milk as for butter, he must expect to be imposed upon by the seller. A notable dairy woman, observing the butter I have described, thought there was both labor and money lost in thus preparing it; for, says she, in such a roll of butter you lose two pounds of butter-milk which I sell; and she evidently prided herself for her sagacity in thus turning the penny. Competent inspectors in our cities, with authority to brand the true quality, as first, second, third, fourth, &c. would prevent impositions, improve the quality of our butter, and soon raise its character at home and abroad.

OLD DUTCHESS.

Method of Preventing Milk from Turning Sour.

Put a spoonful of wild horse radish into a dish of milk; the milk may then be preserved sweet, either in the open air or in a cellar, for several days, whilst such as have not been so guarded will become sour.

INTERNAL IMPROVEMENT.

RAILWAYS.

The advantages attending railways have never been more clearly shewn than by that which has been established at Darlington. All persons who have ever seen these admirable roads have been forcibly struck with their utility, and have been warmly interested in their success. We have received a letter, from which we give the following extract, partially with a view of corroborating the view which we have taken, and partially because we hope the perusal of it may prevent Juries giving excessive damages, in cases where they are called upon to assess the amount of recompense to be awarded to landed proprietors, through whose estates the railways may pass.

Extract of a Letter from Darlington, dated March 11, 1828.

"I am astonished to hear of the sums awarded by jury, on your railway (the Liverpool and Manchester;) surely the gentlemen who compose your juries are unfriendly to one of the greatest improvements the kingdom has yet left for the exercise of its capital and talent; if it were known to your jurymen what is the extent of the benefit of railways, if their love of impartial justice and perfect fairness between man and man could not sway them, they surely never would *frustrate national welfare as much as might lay*

Table No. 2.

Of Mean Temperature and prevalent Winds for the month of December, at Sandy Spring, &c.—See American Farmer, as in Table No. 1.

Days.	*Mean.*	*Wind.*	*Weather.*
1	38°	N. W.	Clear and fine.
2	43	S. W.	Cir. with white frost, morning.
3	57	S. W.	Cmls. tr. mild and fine.
4	53 1-3	S. W.	Cir. and N. W. wind at 9 o'clock A. M.
5	39 2-3	N. W.	Cmls. wind light; night hazy.
6	56 1-6	S. W.	Nimbus, with light snow all day.
7	34 2-3	S. E.	Nimbus—cmls.; snow commenced at 10; N. W. mid-day.
8	37	N. W.	Frost and thin ice, mg. fine with light cir.
9	44 2-3	S. W.	Cirro cmls. slight rain; night, heavy cmlus.
10	46 7-8	S. W.	Wind very light; mild and pleasant.
11	51 2-3	S. W.	To mid-day, then N. W. with showers.
12	42	N. W.	Cir. air very clear and pleasant.
13	45 1-2	S. E.	Cir. cmls. very fine day; showers in the night.
14	50 3-4	N. W.	Commenced at day-break; cmls. with showers.
15	35 1-3	N. W.	Cmls. mg.; day clear and nearly cloudless.
16	40	S. W.	Clear, and nearly cloudless; beautiful cir. night.
17	43 1-3	W.	Very light; cir. cmls. and N. W. wind 8° So. M.
18	26 1-2	N. W.	Cir. str. morning, day and night clear, and nearly cloudless.
19	23 1-3	S. W.	Cir. mg.; afternoon clear and fine.
20	28 1-3	S. W.	Cmls. smoky and nearly calm.
21	39	N. W.	Cumuli.
22	26 2-3	S. E.	Cir. cmls.; nearly calm.
23	29 2-3	W.	Light cmls.; clear.
24	36	S. W.	Cir. through the day; night clear.
25	34	N. W.	Nearly cloudless, and clear all day and night.
26	34 2-3	S. W.	Wind light, clear, nearly cloudless and very fine.
27	40 1-3	N. W.	Clear, nearly cloudless and very fine.
28	44 1-3	calm.	Light cmls. all day.
29	45 1-3	S. W.	Nearly calm, with white frost; smoky.
30	41	N. W.	High wind, but clear and nearly cloudless.
31	27	S. W.	Cir. cmls. clear. Nimbus in night.
Mean,	39 1-3	-	

WINDS PREVAILED.

Course,	N.	N. W.	W.	S. W.	S.	S. E.	E.	N. E.	Calm.
Days,	0	11	2	14	0	3	0	0	1

Remarks.—The month of December, 1828, was remarkable for the dryness and uniformity of its temperature. The mean of the first ten days, 43°; the second ten days, 38¾°; and the last eleven days, 39 36-100°. Lowest on the 19th, 16°. Highest on the 4th and 11th, 60°; range 44°. The whole month with very brief exceptions, was pleasant in an uncommon degree for the season of the year.

Phases of the Moon.—New on the 6th, 11 o'clock 13 minutes, evening. First quarter, 13th, 4 o'clock 38 min. P. M. Full, 21st, 1 o'clock 27 min. morning. Last quarter, 29th, 5 o'clock 40 min. morning.

THE FARMER.

Baltimore, Friday, January 30, 1829.

☞ Having also been complimented with a copy of Mr. Quincy's address to the Board of Aldermen of the city of Boston, on leaving that office, we read it with particular interest and pleasure. We should have made acknowledgement of it in precisely the same spirit, but not in as good terms, as the following by the editor of the Commercial Advertiser. The address manifests a proud consciousness of having discharged his duties with a single eye to the public good; and without that mean anxiety for personal and transient popularity which too often degrades the character of legislative and executive proceedings, and sacrifices the permanent welfare of a city or a state, to gratify party and local views, or to elude the effect of factious resentments.

The address contains many suggestions, facts and statements, that would be curious to the readers of papers in other cities, and useful to their corporate authorities; though not adapted to an agricultural journal.

To discharge the duties of chief magistrate of a populous commercial city, especially where the mayor possesses the powers that are necessary to an efficient administration and police, is a task of great importance and of great dignity, because it requires the possession of rare talents and energy. It is painful, however, to add, that the public favour is not always most certainly secured by the exercise of these qualities. Men, as well as frogs, would sometimes prefer to have a log for a king.

As far, however, as depends upon high talents, and elevated sentiments, the citizens of Boston have in Mr. Otis a worthy successor to their late mayor, but considering the more congenial sphere for a man of learning and liberal sentiments, we cannot help congratulating Mr. Quincy on being translated from the head of a city government to the government of a most venerable literary institution, where we hope he will take measures to correct the *excessive extravagance* in which some of its students have hitherto been allowed to indulge.

After all, says the perhaps impatient reader, what has all this to do with *your journal?* Why, we answer, may not one be indulged some times in the gratification of an heartfelt but humble tribute to men who act their parts eminently well, and in expressing his contempt for those who are sensible of no higher ambition than to flatter, for their own momentary aggrandisement, the meanest passions of the meanest men!

(From the New York Commercial Advertiser.)

The hon. Josiah Quincy, late mayor of Boston, has been elected President of Harvard University by the Corporation of that venerable institution. The choice has been officially announced to the Senate, who are to act upon it to-day. In making this selection, the corporation of Harvard have been truly fortunate in conferring honour where it was due; and the University will derive reflected honour from having at its head a gentleman of such high character and liberal attainments. Mr. Quincy has made a good exchange, from superintending the detail of city business, where particular interests and political hostility constantly thwarted or embarrassed his efforts for the public good, to presiding over the discipline of academic halls, where learning and the arts polish the manners, and emulation is confined to excellence in literary and scientific attainments.

Mr. Quincy's address to the board on leaving the office of Mayor, of which we have the honour to acknowledge the receipt of a copy from himself, ranks among the ablest and most classical documents of the kind, considered with reference both to style and matter, which the present age has produced. His difficulties were numerous in conscientiously discharging his functions, as he anticipated when he first assumed them. But that he has so conscientiously discharged them, is a proud satisfaction of which neither enmity nor jealousy can deprive him, during the remainder of a life which we hope may be long preserved, for the sake of the University, and the general cause of science and learning.

Fecula of Sweet Potatoes.

J. S. Skinner, Esq.

You will greatly oblige your southern subscribers and correspondents, if you will insert in your useful paper a recipe for the process of obtaining the fecula of the sweet potato. A Subscriber.

The process of obtaining the fecula of sweet potatoes, is, we believe, as follows: Grate the clean roots, and wash the mass in water through a clean brass wire sieve; then let the liquor stand a short time to settle. The fecula will be deposited at the bottom of the vessel, and must be dried in pans by the fire or in the sun. The mode of making potato starch is all that seems necessary. This fecula of sweet potatoes is the *patent sago* of Bowen, so long in use in the British army.

Items of Latest Foreign News,

As Connected with the Agricultural Interest.

By the Packet ship John Jay, Capt. Holdridge, London and Liverpool papers have been received, the former to the 14th and the latter to the 16th December. They furnish important intelligence from the seat of war. We take the following summary of the news from the New York Evening Post. The price of American flour in Liverpool, on the 15th December, was $9 33 a $10 22. The Earl of Liverpool died on the 10th December—the Russians have met with a reverse of fortune, and on the 8th of November were compelled to raise the siege of Silistria and retire across the Danube. The head quarters of the Russian army were removed to Jassy. It is said that the weather had become unexpectedly severe—that violent storms had taken place, much snow had fallen, and the cold become intense—so that provisions could not be sent to the besieging army, nor the besieging works be carried on. That part of the heavy artillery, which could not be brought away, was thrown into the bogs near Silistria. The other things which could not be removed were destroyed. All the cattle belonging to the besieging army perished. There was some severe fighting before the siege was raised. In one affair the Russians are said to have lost eight hundred men and a great part of their baggage. The re-capture of Varna was to be immediately attempted—indeed some papers say that it had actually been effected. The Grand Sultan was determined to have it cost what it might. It was garrisoned by only 6000 men, and during the winter no effectual assistance can be afforded by sea.

Much anxiety was felt at Constantinople for the arrival of a large convoy of grain from Egypt.

Accounts had been received of an order of the French government to prohibit the exportation of corn; but it is not known whether the order refers to the whole kingdom, or only to one of those districts into which France is divided for agricultural and commercial purposes. If it should include the whole kingdom, it is evidently a strong indication of alarm concerning the deficiency of the stock of grain. In Paris the price of bread had attained a very high price, namely, a franc, or 10d. sterling, for the 4 lb. loaf; and the government had in consequence brought into consumption a supply of corn from the public granaries, so as to reduce the 4 lb. loaf to 8d. for the poor. About 70,000 individuals, or one-tenth of the population of the capital, were receiving the benefit of this charitable reduction.

The price of Cotton had receded another 8th of a penny, and the sales had been extremely limited, but there was some revival in the demand the last two days.

Still Later News.

The packet ship Napoleon, arrived at New York on Tuesday, bringing intelligence from London to the 23d of December, and from Liverpool to the 24th. The accounts given above, of the retreat of the Russian army from before Silistria and Choumla, are confirmed by the Russian Bulletins. The following are the latest accounts of the markets, from which it will be seen that a small decline had taken place in the grain market.

London Corn Exchange, Dec. 22.

In the course of last week the arrivals of nearly all descriptions of Grain were considerable, and there was another large quantity of Flour. The accumulating quantity of Flour in London, which cannot be sold, has caused the Wheat trade to be extremely heavy, and the best parcels of English Wheat, though scarce, are 2s. to 3s., damp parcels 4s., and foreign on board of ship 4s. to 5s. per quarter lower than this day se'nnight; but foreign Wheat in granary the holders are not disposed to sell at this reduction in value. Barley continues to meet a heavy sale, and is again 1s. per quarter cheaper. Beans and Peas, from the mildness of the weather, are very dull sale, and hardly maintain last quotations. Oats, of good quality, remain firm in price: other sorts, however, meet a difficult sale at their former value. There is no alteration in the nominal top price of Flour.

London, *December* 19.

Tobacco.—The sales of Tobacco this week are about 200 hhds. chiefly Irish at 5¼d. and some good black Virginia at 5d.

Rice.—The only sale of Rice to any extent is a parcel of good Carolina at 37s ord. yellow Madagascar at 12s a 13s, and some ord. white Bengal 15s. The holders appear disappointed that the advance in Wheat has produced no demand for Rice.

Ashes, &c.—By public sale this day, 457 brls Canada Pearl Ashes 35s a 36s, 129 brl Canada Pot Ashes 33s 6d a 34s, 178 chests East India Barrilla 20*l* a 23*l* 5s.

Liverpool Corn Exchange, Tuesday, Dec. 23.

The imports of Wheat since Tuesday have considerably exceeded those of the previous week, and the supply is increased by the arrival of two or three cargoes of foreign; it is however, still below the quantity actually leaving the market. Of Oats, Oatmeal, and Flour the imports continue small. 3,000 to 4,000 quarters of Indian Corn have arrived from the United States, the quality very fine; also about 1,000 barrels sweet Flour from the same country, and a cargo of Flour from the north of Spain. The increased demand for Wheat last Tuesday, occasioned by the purchases of the interior millers, ceased with the day, and the sales since have been on a very moderate scale: a few speculative purchases were effected in the early part of the week, at nearly previous prices; but on Saturday, both here and in the surrounding country markets, the trade was dull and prices rather lower. The transactions in Oats have been extensive, and at full prices, but mostly on speculation. Some large parcels of Oatmeal have also been taken on the same account. Both these articles brought rather more money, at the close of the week, in the Manchester market. Prices of Barley, Beans, and Peas are unaltered: for the first article there has been a little more inquiry. It is estimated that 5,000 to 6,000 quarters of Indian Corn have changed hands within the last few days, and it is now generally held for an advance of 2s. per quarter.

This morning's market was extremely dull, and the few sales effected in wheat were at a decline of fully 4d. per 70 lbs. Oats supported the quotations of last Tuesday; the transactions in them, however, very limited. Flour was offered fully 2s. per sack lower; but prime oatmeal, being scarce, brought quite as high rates.

Liverpool Cotton Market, Monday, Dec. 22.

There was a good demand for cotton last week, the sales amounting to 13,400 bags, namely, 6,770 Bowed, at 5¾d. to 7¼d. chiefly at 6¼d to 6½d for mid. to good; 1,580 Orleans, 6¼d. to 8½d.; 1,470 Mobile and Alabama, 5¾d. to 6½d.; 50 Sea Island, 13½d to 14d.; 90 stained do. 8½d. to 10d.; 900 Pernambuco, 7¼d. to 8¾d.; 1,240 Maranham, 7½d to 7¾d.; 220 Bahia, 7d. to 7½d.; 360 Egyptian, 7d. to 8¼d.; 50 Demarara, 7 3-8d. to 7½d.; 10 Carthagena, 5d.; 90 West India, 5¼d. to 6¾d.; 110 Cumana, 3¾d. to 5¼d.; 530 Surat, 5 3-4d. to 5½d.; and 20 Bengal, at 4d. The market has been very dull to-day, the sales being only from 800 to 1,000 bags; on Saturday about 1,500 were sold. Prices are without alteration from those of last week.

Baltimore Market.—On the receipt of the foreign news on Wednesday, a disposition was evinced to advance the prices of flour and grain, and some few purchases of Howard street flour were made from wagons at $8 37½. The late news received yesterday, however, has counterbalanced the intelligence of the day before, and prices remain much about as they were last week. There is no change in any one article that we can hear of.

HORTICULTURAL.

The Subscriber wishes to notify the Public, that he has become the Agent for the sale of the celebrated Garden Seeds of Messrs. D. & C. Landreth, Philadelphia. The high reputation in which these seeds are held throughout the Union, is sufficient recommendation without further notice. But, he will observe, for the information of such as may be unacquainted with the fact, that (with a very trifling exception) all seeds sold by them are grown under their immediate superintendance,—each package bearing their warranty—and for the good quality of its contents, they hold themselves personally responsible. The Seeds will be sold by the subscriber at the growers' prices; and purchasers will be supplied, in every respect, on as good terms as though they dealt at the Philadelphia Establishment.

☞ Orders will also be received by him for Fruit Trees and Green House and Hardy Ornamental Plants.

The collection of each kind cultivated by the Messrs. Landreths, is not surpassed by any in the Union; and the prices at which they are sold much less than are demanded at some establishments.

Catalogues of the whole may be had (in a few days) *gratis*, by applying to the subscriber.

JONATHAN S. EASTMAN,
No. 36 Pratt street, Baltimore.

Who has on hand, a general assortment of Ploughs, and other Agricultural Implements, as usual.

ALMANAC.

1829. JAN.—FEB.	Sun. Rises. H.	M.	Sets. H.	M.	Length of days. H.	M.	Moon Rises. H.	M.
Saturday,...... 31	7	0	5	0	10	0	3	25
Sunday, Feb. 1	6	58	5	2	10	4	4	23
Monday,....... 2	6	57	5	3	10	6	5	18
Tuesday,...... 3	6	56	5	4	10	8	sets.	
Wednesday,.. 4	6	55	5	5	10	10	6	13
Thursday,..... 5	6	54	5	6	10	12	7	26
Friday,......... 6	6	53	5	7	10	14	8	38

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, Scrubs, ground leafs, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—yellow, 10.00 *a* 16.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

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Marketing—Apples, pr. bush. 1.00 *a* 1.50; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 31¼; Eggs, .15; Potatoes, Irish, bush. .40; Sweet, do. .50; Chickens, dozen, 3.00 *a* 3.50; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .8; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Pork, 4.00 *a* 4.50 per cwt.; prime Beef, 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

ON FLOODING LAND.

[We have in the course of our publication, and particularly in the 7th vol. No. 32 and 33, copied largely from the excellent "Code of Agriculture," by Sir John Sinclair, on the subject of irrigation. We now propose devoting a portion of our columns to some extracts from the same author, on *flooding land*. The objects of irrigation and flooding, though at first view they may appear to be the same, are, in fact, very different—the one being intended to supply moisture in a dry time, and the other to enrich the land. The mode of operating, however, being somewhat similar, warrants this connection, in reference to the following extracts—those who have lands calculated for flooding, will find much instruction in them. We shall, in a subsequent number, make some extracts from the same work, on *warping* land.]

(From the Code of Agriculture.)

The mode of improvement by "*Flooding*," is, when the land is overflowed, or *drowned* by a quantity of water, from a stream or lake; by means of which, (if it takes place in a favourable season,) the future production of crops, both of grass and of grain, is promoted. It differs completely from irrigation, in which the water ought constantly to be in a *flowing state*, whereas in the process of artificial flooding, it is wholly or nearly stagnant. The great object of the process is, 1. To admit the water, without any injury to the surface of the soil from the force of the stream that is admitted; and, 2. To withdraw it in such a soft and regular manner, that none of the mud, deposited on the surface, shall be taken away.

Along the margins of many of the rivers in England and Scotland, the meadows are thus improved —When the floods take place in winter, or spring, they produce the most fertilizing effects; but these flat grounds, being rarely protected by embankments, they often suffer severely from overflowings in summer and autumn. The management of these meadows, on improved principles, shall be discussed in a subsequent section.

The most striking instance known in Great Britain, of advantage being derived from the inundations of a lake, is, that of *Loch Ken*, in the Stewarty of Kirkcudbright. At the head of that beautiful piece of water, there is a flat of about 240 statute acres, which is rendered, by flooding, one of the richest spots in Scotland. Many acres in it produce at the rate of three tons of hay each, and some parts of it have been cropped with grain for 25 years in succession, without any manure, except what it receives from the inundations it experiences. These, however, leave behind them a variety of enriching substances.

The advantages of *flooding* in favourable circumstances, cannot therefore be too highly appreciated; and it evidently appears that water, in a *stagnant state*, may produce the most beneficial effects, more especially where the surface is incumbent upon an open subsoil or bottom.

From the advantageous consequences of flooding, when done by nature, there is reason to imagine, that the same benefit would result from it, when artificially executed; and this was formerly attempted in various parts of the kingdom. Hence the obsolete practice of *floating upwards*, as it was termed. For that purpose, the water was penned, in times of floods, by means of a dam or floodgate across the bottom of the meadow, or flat to be watered. The waters were not suffered to remain long upon the land, but were let off as soon as it was judged that they had dropped their sediment. The benefit arising from this method of using flood waters, it is said, was considerable; but when the improved mode of irrigation, by floating ridges, was introduced, and found more advantageous, the other was discontinued.

Besides these meadows, mill-ponds thus fertilized, were rendered dry, and cropped with oats; artificial pieces of water, were likewise filled up, and became productive; and by means of sluices, and other contrivances, low grounds and bogs were laid under water during the winter months, and greatly enriched with productive vegetable earth, from the surface of the higher parts. The waters were let off in spring, and the ground was then ploughed and sown. But in consequence of the great humidity of the soil, the crops were very late, and in a wet summer they were lodged and spoiled. In dry seasons, however, and where proper attention was paid to the draining and ridging of the soil, the returns were considerable, and the land was enabled, without manure, to raise good crops of grain

In discussing this mode of reclaiming waste land, it is proposed to consider the following particulars: The manner in which the plan ought to be carried into effect; The mode in which the flooding operates; The kinds of water, either proper or improper for the purpose; The seasons fittest for the operation; and, The advantages and disadvantages attending it.

1. *Manner of carrying the plan into effect.*—This plan of improvement, is only calculated for tracts where there is a command of water, and an opportunity of stemming it up, so as to overflow the whole surface. In many places there are such situations, in particular all land-locked peat mosses, that lie on a level lower than the adjacent springs or rivers. In some districts 200, 300, and even 400 acres of mossy land, may be laid under water, by a single bank at the outlet, which may be effected at a trifling expense. Merely by shutting up such openings, and stemming the streams that flow through them, this species of improvement can be *artificially* accomplished.

2. *Mode in which the flooding operates.*—Some ingenious reasons have been assigned for the advantages resulting from this process; as, that it promotes the fermentation of any vegetable matter with which it comes in contact; and that the mechanical weight of a body of stagnant water must tend to consolidate, and to improve the texture of a soft soil: But the salutary effects of flooding may principally be ascribed to the advantages of moisture, so essential for vegetation; and to the particles of sand, clay, earth, calcareous matter, and other adventitious substances, with which the waters are impregnated. In peat bogs also, flooding has a powerful effect, in decomposing the antiseptic quality of the tan or colouring matter contained in the bog, and carrying it off.

3. *The waters calculated for flooding.*—All sorts of water are not equally adapted for the beneficial practice of flooding. Pure spring water, especially such as issues from calcareous strata, answers the purpose well; and if it can be used in sufficient quantities, will convert heath, and coarse herbage, into sweet pasture grasses. Soft, and also muddy waters, may be employed with advantage. River water is often impregnated with a number of useful ingredients; and the quality of water may sometimes be artificially improved, by a mixture of calcareous and other substances. But waters that issue from peat mosses, or soils impregnated with pyrites, or bituminous oil, are said to be injurious.

4. *The seasons fittest for the operation.*—The object of watering meadows, is essentially different from that of improving waste lands by means of flooding. In the former case, water is frequently made use of to nourish the grasses already produced by the soil. In the latter, the purpose is, to destroy the indigenous plants, as they are generally useless. Hence, though covering the soil with water *in winter*, is of use, yet the greatest improvement must be effected by *summer flooding*. *The heat of the sun*, combined with water, produces a putrid fermentation of the vegetable matter on the surface of the land; after which, when the land is left dry, the coarse and useless herbage disappears, a rapid growth of succulent grasses rises in its place: this is the case on even sterile mosses.

5. *Advantages and disadvantages of the process.*—The great advantage of *flooding* is, the cheapness of the process, and the facility with which it is executed. On the other hand, it is only in very flat countries that it can be used to any extent; and if it be carried on upon a great scale, covering great tracts of country with water, in cold, and still more in the warm seasons of the year, it must render the climate moist and unwholesome. At the same time, where the situation is favourable, it can hardly fail to be attended with benefit, in a pecuniary point of view.

INDIAN CORN.

Bleak Hill, King William Co. Va. Jan. 28, 1829.

Dear Sir:

This will be handed you by my son, together with an ear and a stalk of corn. I have been induced to send them to you, in consequence of publications observed in some of the late numbers of the Farmer. The stalk, though not measuring so much in circumference as Mr. Daniel Jenifer's, at a particular point, still I suspect it is larger, measuring an average of the joints. On account of its uncommon size, I was induced to preserve it. It has been in my house about nine years, as well as I recollect. The lapse of time has been so great, that I do not remember as to the product of this stalk. The ear was taken from my crop of 1828. I refer its quality and size to your umpirage—(it would give me much pleasure to get some of Mr. Upshur's kind of corn.) My ear measures nine and a half inches in circumference at the larger end, and eight and a half inches in length, and contains eleven hundred and ninety-six grains.

Yours respectfully,

THOMAS CARY NELSON.

J. S. Skinner, Esq.

[The corn stalk sent us by Mr. Nelson is indeed a curiosity. It is merely the lower end of the stalk, about four feet long; and measures at the large end 7¾, and at the small end 6¾ inches in circumference. It was taken from the field in a green state, as is evident from its shrivelled state, and must consequently have been much larger. It is even now worthy of a place in a repository of natural curiosities.]

(From the New England Farmer.)

HOVEN IN CATTLE.

Mr. Fessenden—I take the liberty of transcribing the following, which I have not seen in the Farmer. The first is invaluable, and should be preserved or remembered by every farmer.

"*Hoven in Cattle.*—As the distension is chiefly occasioned by carbonic acid gas, any substance which will combine with that gas will reduce it. Such a substance is readily found in ammonia (hartshorn) a spoonful of which, infused in water, and forced down the animal's throat, completely removes the distension." *Annales de Chimie.* Soda and Potash will combine as readily with carbonic acid gas as ammonia; and, therefore, if dissolved in water, may be efficaciously and safely administered.

Loudon's Magazine for August, mentions the establishment of two new agricultural schools on the continent; one in France, by the Abbe du Pratt, the other in Bavaria, by Baron Von Closin. In the latter, to which is attached an experimental farm of 400 acres, youths from 10 to 15 years of age are taken and maintained, clothed and taught, for five years, for the value of their labour, and 50 florins, (about $22) entrance money. The example of Fellenberg is effecting wonders in Europe. When shall we appreciate and profit by it?

Potato Mortar—M. Cadet de Vaux found mortar of lime and sand, and also that made of clay, greatly improved in durability, by mixing boiled potatoes with it.—*Bul. Un.*

Plants raised from seeds which have been crossed, always bear the form of the mother, but take the colours of the male parent. Fewer seeds are produced by art than nature alone, and the impregnated flowers are less visited by bees than others.

[*Annales Hort. Soc. Paris.*

ADVANTAGES OF SMALL FARMS.

A single uncultivated acre, is a physical evil in any state, and there can be no doubt that extensive tracts which are now waste would have been reclaimed, and an incalculable addition been made to the produce and population of the country, if the system of large farms had not obtained among us. In a small farm each part is seen by the eye of its master, and has its due tillage. The work of husbandry is chiefly performed by the farmer and his family. They spare no pains to cultivate that soil which assures their subsistence; and hence the glebe subdued and manured with assiduous care, makes a large return to that labor which is bestowed on its culture. A vast population springs up; and the land is covered with the dwellings of a multitude of cultivators, who find, each in the produce of that small farm which he occupies, a decent and comfortable maintenance. It happens otherwise where farms are of a large extent. In a large farm many parts are overlooked or neglected, and a more negligent culture is bestowed by hired laborers more remiss and less interested in the crop. The great farmer is placed in a state of higher plenty, and his dwelling, his furniture, and his table express his opulence; but while he enjoys this affluence, and while luxury gains admission among a rank of men to whose condition it is ill suited the populousness of the country decays, the number of industrious cultivators is diminished, and extreme indigence is too often found in the dwellings of those who inhabit around. This practice has for some time prevailed in England; the number of small farms is diminished, and the proprietors of estates have in many instances adopted the plan of laying many small farms into one large farm. Agriculture has not profited by this alteration.—The glebe stinted in its tillage, where a single master grasps a whole domain, has not yielded a more abundant harvest, and the markets less amply provided in some important articles, miss that supply which they were accustomed to draw from small farms. The population of the country has fallen. While the mansion of the great farmer has risen more ostentatiously, those numerous tenements that were scattered through the fields, or that encircled the village green, have disappeared, and the "deserted village" has furnished a theme for the poet's song. The ancient tenant finding no occupation in the fields where he has spent his youth, forsakes his native shore and seeks with his family another climate where his industry is better rewarded, or where he serves to swell the ranks of sickness, poverty, and death. This is not all.—Let it be remembered that a firm and independent spirit is better nourished among that rank of men, by whom small farms are cultivated. They are actuated by the same spirit. They derive courage from their numbers and resources. The bold animate the timid. The resolute confirm the wavering. They take their measures in common, they prosecute them with vigor, and their simple virtues will give its character to a country, and uphold in the hour of danger, the rights and liberties of all.

[*Taunton Advocate.*

NONDESCRIPT GRASS.

Charleston, S. C., 1st mo. 24, 1829.

J. S. Skinner, Esq.

Sir,—Enclosed I send you a few seeds of a nondescript grass, obtained from a gentleman of Pendleton district in this state. Thou wilt please have them planted immediately in a flower pot, and they will be ready to set out in the spring, as from the hardness of the husk they do not vegetate without a winter's soaking. The gentleman who furnished them, informed me that stock of all kinds prefer this grass to any other vegetable in the country; and should it succeed in our latitude, from its rapid growth on all kinds of land, but particularly swamp and meadow bottoms, I think it promises to be an acquisition of no ordinary character. It has not been *cultivated* until recently, and not yet to any considerable extent. It will grow two inches in the course of a night; and from one root he cut, in one month, about nine pounds of sweet grass, by actual weight, last season. On my return in the spring, I will give the method of saving the seed, and mode of planting, &c. as I have not leisure to add more at present, than that I am, with esteem, thy friend, &c.

[The seed enclosed in the above have been handed to a friend, who will plant them, and ascertain whether the grass will answer in our climate.]

FECULA OF POTATO.

J. S. Skinner, Esq. *Waddington, Jan. 26, 1829.*

Sir,—In one of your papers a few weeks since, I read an account from our Consul in Spain, of the valuable properties of the fecula of the sweet potato of our Southern states, or one of its varieties, as I suppose; and, as in the certificate of Mr. A. V[illegible]da much interest is attached to the use of this extract, (if I may so say,) I have taken the liberty to enclose you some prepared in my family from the *Blue Nose* potato, which I prefer for the table above any other we have in this high latitude. And I am the more inclined to trouble you in this respect, as this article with us supersedes the necessity of sending to town for arrow root, which we have sometimes received adulterated. Its produce from the peeled potato is about 18 oz. to 10 lbs. of raw vegetable, and requires the attention and labour of a female for four hours before the operation is completed. On a large scale, two women would prepare 10 lbs. of the fecula in a day. It is prepared for culinary use as the arrow root.

With my best wishes,
Your obed't serv't,
GOUV'R OGDEN.

P. S. I had forgotten to mention the enclosed sample was made as a substitute for the *wheat* starch, and thus generally used in the family. It is undoubtedly far preferable.

HORTICULTURE.

[We have been favoured with a copy of the initiatory discourse of Myron Holley, Esq. delivered at Geneva, New York, in November last, before an assembly from which was formed the *Domestic Horticultural Society* of the western parts of the state of New York, and we regret exceedingly that the arrangement of the Farmer precludes its entire republication. The discourse is arranged with great method, its style is chaste and elegant, and the subject matter abounds in classical allusions, and ideas beautifully expressed. The speaker commences with an appropriate notice of the "pilgrim fathers" who first settled the region of country over which this new society is about to extend its benign influence; gives us a concise and interesting view of the history of Horticulture, and describes and illustrates its great advantages, as conducive both to the comfort and the pleasures of man. We have only room for a few brief extracts from the several divisions of this excellent discourse.]

Extracts from the Initiatory Discourse of
MYRON HOLLEY, ESQ.

At the institution of the Domestic Horticultural Society of the western parts of New York.

"Holland and Flanders were very early distinguished, as they still are, for their love of plants and flowers, in which they have probably excelled all the other people of Europe. Previous to the sixteenth century exotics were more cultivated there than any where else, and their gardens contained a great variety of rare plants. At that early day they carried on a considerable commerce in these articles. They imported plants from the Levant and both the Indies, and exported them to England, France and Germany. Before the time of Henry the eighth, the London market was supplied with culinary herbs and roots from Holland. And during many reigns afterwards the English kings obtained their gardeners from that country.

"The soil of Great Britain was considered unfit for the finest productions of Horticulture till within the last century. It was always unrivalled for the freshness and beauty of its verdure. But, it has been known only within the three or four last generations to have paid great attention to the ornamental cultivation of its pleasure grounds, or the profitable produce of its kitchen and fruit gardens. Since the general introduction of forcing houses, at the beginning of the eighteenth century, her noblemen, and other men of taste and opulence, have been wonderfully successful in the finest arts of cultivation. Now there is said to be more certainty of finding pine apples, of domestic growth, in the London market, every day in the year, than there is either in Jamaica or Calcutta.

"The total number of vegetable species, not indigenous, in England, introduced previous to the accession of George the 4th, is said to have been 11,970; of which the first 47 were brought in before and during the reign of Henry 8th; 533 during that of Elizabeth; 578 during the reign of the two Charles's, and Cromwell; 44 in that of James 2nd; 29[illegible] in that of William and Mary; 230 in that of Anne; 182 in that of George 1st; 1770 in that of George 2nd; and 6756 in that of George the 3d."

"The productions of the garden are affected, either for evil or for good, in the different stages of their growth, by the most minute and the most magnificent objects in nature, by the bugs, by the worms, by the flies, by the birds, by the clouds, by the air, by the sun. The knowledge of these objects, with all their means of favour or annoyance, and the superadded knowledge of all the other objects and means by which the effects of these, so far as they are good may be promoted, and so far as they are evil, may be prevented, should be embraced within the scope of his acquirements. The science of Horticulture, therefore, does not merely admit—it demands, excites, and favours the most extensive and diversified intellectual attainments.

"But, it has pleasures to bestow which amply repay all its demands, both upon the body and the mind.

"It gratifies all the senses.

"The feeling is gratified, by its smooth walks, its soft banks, the touch of many of its leaves, and fruits, and flowers, and by the refreshing coolness of its shades.

"The smell is agreeably excited, from unnumbered sources. From the lowliest pot-herb to the stateliest tree; from the humble violet and mignionette to the splendid tulip and the queenly rose, the garden is the unrivalled repository of fragrance.

"The gratification of the ear, in a garden, is adventitious, not of man's procurement, but nevertheless certain and real. The most tasteful of the pimal creation, in their flight, from one end of the earth to the other, discover no spot so alluring to them as a well replenished garden. The birds are fond of its shade, its flowers and its fruit. Amidst these they love to build their nests, rear their young, and first win them to that element which seems created to be their peculiar field of joy. And if they sometimes commit unwelcome inroads upon the delicacies which we prize, they more than compensate us by their cheerful and continual songs, and by destroying innumerable and more dangerous intruders in the air, in the trees, upon the plants, and on the ground.

"The taste finds its choicest regalement in the garden, in its sweet roots, its crisp and tender sallads, its nutritious and acceptable pulse, its pungent and salutary condiments, its fragrant and delicious fruits, with a countless list of other palatable productions, all existing in such inexhaustible variety, that the art of cookery takes more than half its subjects from that overflowing store-house.

"But the eye delights in a garden, as if all its labours, its cares and its knowledge had been dedicated to that single sense. From every quarter, and border, and arbour; from every bank, and walk, and plant, and shrub, and tree; from every single object, every group of objects, and every combination of groups, spring forms of beauty, fresh, living, well proportioned, graceful beauty, natural though cultivated, innocent though gay.

"Horticulture gratifies the higher faculties of our nature, the intellectual taste, the reason, the heart."

"In 1805 a private association for Horticultural objects was commenced in London, which was incorporated by royal charter, in 1809. In 1803, in Edinburgh, a Florist society was instituted, which, in 1809, enlarged its views and took the title of the Caledonian Horticultural society. At Paisley, in Scotland, a Florist society was, some time ago, established, of which an eminent writer observes, that the rearing of beautiful flowers is found to improve the taste for manufacturing elegant patterns of fancy muslin; while the florists of Paisley have been long remarked for the peacefulness of their dispositions, and the sobriety of their manners.

"Several Botanical and Horticultural societies have been commenced in the United States, some of which are rapidly advancing in importance and respectability. The influence of them collectively, and of their several scientific and public spirited members, individually, has been very perceptible in awakening a general desire for the improved cultivation of gardens and pleasure grounds, and an increasing love of rural pursuits. One of the most useful of these is, the New-York Horticultural society, which was originally formed in 1818, though not incorporated till 1822. The effects of this society are most agreeably manifested in the superior quantity and quality of culinary vegetables, fruits and flowers to be found in the New-York market; in the emulation excited among actual cultivators; in the valuable practical publications, upon gardening and planting, which it has encouraged, and in the public discourses of several of its most intelligent and accomplished members.—With these societies, I trust, the institution which we are now assembled to originate, will become an active and useful fellow laborer.

"The benefits of such associations are numerous and of great importance.

"They encourage profitable industry. In the vicinity of London there are occupied, as fruit and kitchen gardens, about 14,000 acres of land, of which the annual produce is sold for more than 4,000,000 dollars.—Within six miles of Edinburgh, there are computed to be 500 acres, occupied in the same way, of which the annual produce is worth near 100,000 dollars. For the supply of the New-York market with vegetables, fruits and flowers, there are cultivated several thousand acres of land, of which the aggregate annual produce, in the market, is supposed to be near $100,000. The portions of earth thus cultivated, are far more productive than any other equal portions of land in the countries where they are situated. And they give a healthy and virtuous employment to great multitudes of human beings.

"They promote important practical knowledge, by the inquiries which they stimulate, and the competition which they inspire. They lead to the institution of an immense number of more skilful and careful processes of cultivation than are previously followed, from some of which advantageous results may be reasonably anticipated. And by conversation, by writing, by public addresses, and every other method of communicating knowledge, every advantageous result will immediately be shared by the whole community.

"They create a new spirit of Horticultural and botanical enterprise. In our country, a necessary and most desirable consequence of this will be, that we shall obtain a complete acquaintance with all our indigenous vegetables. From the east and from the west, from the north and from the south, our native plants will all be gathered. Every swamp, and every valley, every plain and every mountain, which is surveyed by the American eagle, in his widest flight, will be made tributary, with all its vegetable wealth, to the great interests of science and humanity."

"The tendencies of such associations are all liberal, and philanthropic, and social. By uniting gentlemen of all classes, professions and opinions in the prosecution of interesting and commendable objects, the amiable and elegant courtesies of life will be extended.—Their stated meetings will be embellished by taste, intelligence, and festive refinement; and all will go away from them with a keener relish of the beauties of nature, and a more cheerful devotion to rural employments."

"To old age the employments of Horticulture are delightful and appropriate. They afford a secure retreat from the noise, turbulence, ingratitude, and fierce contentions of a stormy world; and inspire serenity and cheerfulness. Cicero, in his letters to Atticus, speaks of them as the best remedy for grief and concern of mind."

ON FRUIT TREES.

Considerations on the processes employed by Nurserymen for obtaining better sorts of Fruits, and on the means by which Nature appears to accomplish the same result. By M. Poiteau.

The author observes, it is but rarely that improved varieties of our cultivated fruits originate with nurserymen; they are generally the production of chance, found in the woods or hedges, or from distant corners of provinces, where the finer sorts are hardly known, and where the sorts they have are mismanaged or neglected. That "like begets or produces like," has long been considered a law of nature among animals and some vegetables; but this law is not always uniform, especially among domesticated animals or highly cultivated plants, Yet, on this principle, our nurserymen have acted in their endeavours to obtain better kinds of fruit by sowing seeds of the best, in the hope that they would raise something still better. It is well known that in this process they have failed. The celebrated Duhamel and his contemporaries failed in the same way. From these and other instances, the author concludes that practitioners are wrong in their expectations of obtaining at once what can only be the result of time. He seems to infer that seedlings, apples or pears, for example, require some years and some cultivation, while they are passing from one stage of their infancy to another, before they can show their inherent qualities.

As proof of this conjecture, he instances the case of the fruit trees in the United States of America at this time. There, it appears, they have little trouble in procuring superior fruits from seed; and, that they have many excellent new kinds, their lists sufficiently testify. The cause of this he conceives to be, that the first imported fruits, which the colonists received from Europe 300 years ago, were, amidst the bustle of establishing and securing themselves in a new country, lost, from neglect or ignorance of the art of grafting; and that they only had recourse to seeds for perpetuating the kinds. These seedlings have passed through several generations, and are now arrived at that period of their existence in which their inherent qualities are fully developed.

The Americans, M. Poiteau adds, attribute this to another cause, namely, that in proportion as their newly broken up lands are ameliorated by cultivation, &c. so, in like proportion, are the qualities of their fruit. It is a common saying in Virginia, that the fruits of such and such an orchard "begin to change for the better." But this can hardly be admitted; for though such circumstance may improve the quality, it cannot change the physical character of fruit.

After noticing the fact proved by Mr. Knight, F. H. S. that a crab, fecundated by the pollen of a good fruit, produces better kinds from seed than can be had from seeds of improved fruit, he proceeds to describe the method used by the Flemish orchardists to obtain new sorts, and which is given on the authority of M. Van Mons. The Belgians, he says, do not prefer the seeds of ameliorated fruit. When the seedlings appear, they do not, as others do, choose such only as are free from spines, having large leaves, and remarkable for the thickness and beauty of their wood; but, on the contrary, such as are most spinous, provided the spines are long, and well furnished with buds or eyes placed near together. This last circumstance they consider as an indication that they will soon show fruit. Individuals having such properties are grafted, apples on paradise, and pears on quince stocks, to hasten fructification. The first fruits of these grafts are generally bad; but whatever they are the seeds are carefully saved and sown. The second generation, treated in like manner, begins to show improvement. Through a third and fourth the process is continued, till they arrive at a point which gives fruit worthy of being preserved.—Peaches and apricots, treated in the same way, yield excellent fruit the third generation; apples require four or five, and the pear about six, transitions. This process, concludes M. Poiteau, is only an imitation of that of nature, exemplified in America.—*Annales Soc. de Hor. de Paris.*

TRANSPLANTING EVERGREENS.

The unfading verdure of the resinous trees forms a pleasant relief to the eye, amid the desolate fields and snow crowned hills of winter. These beautiful inmates of the northern forests, are peculiarly intractable to the skill of cultivation. The spruce and the fir, when removed from the cold and bleak solitudes where they best love to fix their roots and send up their tall pyramids of green, to a more genial situation, wither and perish. These beautiful and stately plants are desirable as the ornaments of the garden or the groves of cultivated scenery.—The English books recommend, that they be removed in the depth of winter, with frozen masses of earth around their roots, to holes dug for their reception during the preceding autumn. By this simple process, it is said they may be transplanted without injury, and flourish in their freshness as if still clinging to the rock or rising in the waste.

HOPS.

From the report of E. A. Le Breton, inspector of hops in Albany, made to the legislature, it appears that during 1828, he inspected 1263 bales of hops, weighing 277,502 lbs., raised in the following counties: Madison, 151,268; Otsego, 18,467; Onondago, 16,962; Herkimer, 4,329; Columbia, 2,616; Monroe, 2,369; Franklin, 2,336; Oneida, 76,366; Saratoga, 990; Chenango, 925; Oswego, 347; Bennington, Vt. 527 The amount of fees is $277.50 The inspector says the raisers have done their work much better the present season, and the hops have gone into market a much better sample than for years back. The average price of hops has been about 94 cts. per pound. This low price has partly been occasioned by the large quantity remaining in store, of the previous years' growth, and partly from the depression of the brewing business in the state. [*Alb. Adv.*

RURAL ECONOMY.

(From the New England Farmer.)

ICE HOUSES AND REFRIGERATORS.

Dear Sir,—Col. Pickering has sent me the accompanying pamphlet on Ice houses and Refrigerators, for examination, and if I concurred in opinion with him, desired that I would send it to you for republication. I think it might be very useful. Our butter is brought to market in a sad state in summer, and it makes me blush when I reflect, that for more than thirty years the Philadelphia market has been supplied with it packed in ice, and since Mr. Moore's publication, in Refrigators. I. P. Davis, Esq. imported one from Philadelphia, some years since, with the hope that it might be adopted here.

The republication of this tract, in the New England Farmer, would, I think, be the most effectual means of exciting our farmers to imitate those of Pennsylvania.

I am, dear sir, respectfully,

Boston, Jan. 20. J. LOWELL.

—

An Essay on the most eligible construction of Ice Houses; also, a description of the newly invented Refrigerator, being a simple and cheap machine, by the use of which fresh provisions, butter, liquids, &c. may be cooled and preserved for family uses in the heat of summer, or taken to market in as good condition as in the winter season.

Agreeably to an intimation given the public some time since, I shall now endeavour to give some practical directions for the construction of *Refrigerators*, and (as being connected therewith,) also attempt an investigation of the theory and practice of the art of preserving ice through the summer.

I stated in a publication which circulated through several newspapers in the United States, that I had no pretensions to the discovery of new principles in the construction of the Refrigerator. The particular mode of applying some before known and understood, is all I claim as my invention; the utility of which has been fully proved during the last summer.

What I have to observe on the keeping of ice is merely an attempt to carry improvements already begun, a step further than I have yet heard of. I have apprehended the reason why the art has not progressed faster, is because no one has yet fully investigated the principles upon which it depends; or, if this has been done by individuals, they have not favoured the public with a knowledge thereof. This is my present object, and for reasons which will hereafter appear, I prefer going through it, before I enter on the subject of refrigerators.

In treating this subject, it will be necessary to lay down certain positions relative to heat, some of which have not been well understood until very lately. All that I shall offer, have, however, been fully established by actual experiment. And in order to be as concise as possible, I shall avoid referring to the different writers who have published those valuable discoveries to the world. Philosophical readers will know where to look for them, and those of a different class, it is presumed, will not wish to be troubled with such references or quotations.

Water is converted into ice at the temperature of 32° of Fahrenheit's thermometer; and as long as any water remains in contact with the ice, the temperature of the ice will remain nearly stationary, but when the water is all frozen, the ice will gradually give out its heat to the incumbent atmosphere, until it acquires the same temperature. Ice exposed to an atmosphere at any temperature above 32°, or, if placed in contact with any substance above that degree of temperature, will in either case be melted. The temperature of the earth a few feet below the surface in this climate, is generally found to be between 50 and 55°. If, therefore, a pit be sunk in the earth, and filled with the coldest ice, (which may sometimes be obtained as low as 10° by removing it from the water and exposing it to a very cold atmosphere,) the consequence will be, that the earth will give out heat to the ice, until the temperature of the mass is raised to 32°; the process of melting will then commence, and continue to go on, as long as ice remains. But this process will not be as rapid as those who are unacquainted with the subject might imagine: it would seem, that as melting ice is always found to be at the temperature of 32°, that after the mass becomes raised to that degree, the smallest addition of heat would immediately convert the whole into water. But this is not found to be the case; to prevent it, one of the many wonderful properties of matter interposes, and which only enables us to preserve ice at all. This is the difference between water and ice in their *capacities for heat.* As I would wish to be clearly understood by every class of readers, and as I may probably have occasion to repeat this term, it will perhaps be proper to give a definition of it. The capacity for heat which a body is said to possess, is, its propensity or power of imbibing and retaining a greater or lesser quantity of that fluid, and at the same time appear to be of the same temperature as a given standard, which may contain a much greater or smaller quantity. Thus, in the subject under consideration, the capacity of water for heat, is greater than ice; it being found by experiment, that ice at the temperature of 32°, requires the addition of no less than 146° of the same scale, or thereabouts, to reduce it to water. To elucidate the subject still further, let a pound of water at the freezing point, (to wit,) 32°, and a pound of ice at the same temperature, be put in situations where they will both receive an equal quantity of heat; when the ice is all melted, it will be found that the water has acquired 146° of heat, and of course will be at 178°. Or take a pound of water at 178°, and a pound of ice at 32°, put them together and cover them in a fit vessel, the ice will be melted, and the mixture will be 32°, or very nearly.

It appears then, that ice at 10°, deposited in a pit as before mentioned, and being in this solid state capable of conducting heat, must receive a sufficient quantity to raise the whole mass 22° before any will be melted; when the melting process commences, it will cease to be propagated to the internal parts, because all that is received at the surface will go to supply the increased capacity of the water; and this will be produced in direct proportion to the heat received. The whole quantity requisite to melt all the ice, being just as much as would raise the temperature of the same weight of water 178°. The greater the quantity of ice, the longer it will be in melting, because there will be less surface in proportion to its weight, and experience has proved that the quantity may be so great, as not to be all melted during a whole summer, in this situation.

It seems, then, that our whole business is to guard against the introduction of heat; and in order to take effectual measures for this purpose, it is necessary to be acquainted with, and attend to, the following principles: That heat is transmitted with more difficulty through some substances than others; that it passes through fluid mediums by transportation, or the interchange of particles, and not from one particle to another, as in solid bodies. The capacity of air for retaining moisture is greatly increased by heat. The power of air to conduct heat is increased more than four fold by moisture. An unequal distribution of heat in fluids will always produce currents or interchange of particles; in general those of the highest temperature will rise to the surface. There is, however, an exception to this rule in water; between the temperatures of 40° and 32°, that fluid is more expanded than at temperatures a little higher, and consequently those particles which receive a small additional heat, will descend. To this extraordinary property in water, is to be ascribed some of the most wonderful phenomena in nature; but does not affect the subject under consideration. Substances which transmit heat freely, such as the metals, are called conductors of heat; and those through which it passes with difficulty, such as wool, fur, &c. are called nonconductors; and they are called good or bad conductors, or nonconductors, agreeably to their degree of conducting power.

(*To be continued.*)

Improvement of Candles, by J. Murray, F. L. S.

I steep the common wick in lime water, in which I have dissolved a considerable quantity of common nitre or saltpetre. By this means I secure a purer flame and more superior light; a more perfect combustion is insured; snuffing is rendered nearly as superfluous as in wax candles, and the candles thus treated do not "*run.*" The wicks must be thoroughly dry before the tallow is put to them.

LADIES' DEPARTMENT.

(From the London "Anniversary" for 1829.)

ENGLISH, SCOTCH AND IRISH BEAUTY.

It hasbeen said by some one, and if not said, it shall be said now, that no woman is incapable of inspiring love, fixing affection, and making a man happy. We are far less influenced by outward loveliness than we imagine. Men speak with admiration and write with rapture of the beauty which the artist loves, which, like genius in the system of Gall, is ascertained by scale and compass: but in practice, see how they despise those splendid theories, and yield to a sense of beauty and loveliness, of which the standard is in their own hearts. It is not the elegance of form, for that is often imperfect; it is not in loveliness of face, for there nature has perchance been neglectful; nor is it in the charm of sentiment or sweet words, for even among women there is an occasional lack of that; neither is it in the depth of their feelings, nor in the sincerity of their affection, that their whole power over man springs from. Yet every woman, beautiful or not, has that power more or less, and every man yields to its influence.

The women of all nations are beautiful. Female beauty, in the limited sense of the word, is that outward form and proportion which corresponds with the theories of poets and the rules of artists—of which every nation has examples, and of which every woman has a share. But beauty, by a more natural definition of the word, is that indescribable charm, that union of many qualities of person and mind, and heart, which insures to man the greater portion of happiness. One of our best poets has touched on this matter with the wisdom of inspiration. These are his words:

> She dwelt among the untrodden ways
> Beside the springs of Dove,
> A maid whom there were none to praise,
> And very few to love.
>
> She liv'd unknown, and few could know
> When Lucy ceased to be;
> But she is in her grave, and, oh!
> The difference to me.

This was a maiden something more to the purpose than the slender damsels whom academies create on canvass, or of whom some bachelor bards dream. The poet of Rydal Mount is a married man, and knows from what sources domestic happiness comes. The gossamer creations of the fancy, were they transformed to breathing flesh and blood, would never do for a man's bosom. Those delicate aerial visitors, those personified zephyrs, are decidedly unfit for the maternal wear and tear of the world, and would never survive the betrothing. Not so the buxom dames of our two fine islands.—It was the intention of nature that they should be the mothers of warriors and poets, and philosophers and historians, of men of sense and science—and she formed them for the task. Look at them as they move along. If art, with its scale and its compasses, and its eternal chant of "the beau ideal—the beau ideal," had peopled the world, we would have been a nation of ninnies, our isles would have been filled with lay figures and beings "beautiful exceedingly," but loveless, joyless, splendidly silly, and elegantly contemptible. It has been better ordered.

I have looked much on man, and more on woman. The world presents a distinct image of my own perception of beauty, and from the decisions of true love I could lay down the law of human affection, and the universal sense entertained respecting female loveliness. There is no need to be profound, there is no occasion for research; look on wedded society, it is visible to all. There, a man very plain is linked to a woman very lovely; a creature as silent as marble, to one eloquent, fluent, and talkative; a very tall man to a very little woman; a very portly lady to a man short, slender, and attenuated; the brown weds the black, and the white the golden; personal deformities are not in the way of affection; love contradicts all our theories of loveliness, and happiness has no more to do with beauty than a good crop of corn has with the personal looks of him who sowed the seed. The question, therefore, which some simple person has put, "which of the three kingdoms has the most beautiful ladies?" is one of surpassing absurdity.—Who would ever think of going forth with rules of artists in their hands, and scraps of idle verse on their lips, to measure and adjust the precedence of beauty among the three nations? Who shall say which is the fairest flower of the field, which is the brightest of the stars of heaven? One loves the daisy for its modesty, another the rose for its splendor, and a third the lilly for its purity—and they are all right.

We know not, indeed, by our natural theory of female loveliness, which of the nations has the most beautiful women, because we know not which of them is the happiest. Wherever there is most bosom tranquility, most domestic happiness, there beauty reigns in all its strength. Look at that mud hovel on one of the wild hills of Ireland; smoke is streaming from door and window; a woman to six healthy children and a happy husband, is portioning out a simple and scanty meal; she is a good mother and an affectionate wife; and though tinged with smoke and touched by care, she is warmly beloved; she is lovely in her husband's eyes, and is therefore beautiful. Go into yon Scottish cottage; there is a clean floor, a bright fire, merry children, a thrifty wife, and a husband who is nursing the youngest child, and making a whistle for the eldest. The woman is lovely and beautiful, and an image of thrift and good housewifery, beyond any painter's creation; her husband believes her beautiful too, and whilst making the little instrument of melody to please his child, he thinks of the rivals from whom he won her, and how fair she is compared to all her early companions. Or here is a house at hand, hemmed round with fruit trees and flowers, while the blossoming tassels of honeysuckle perfume us as we pass in at the door. Enter and behold that Englishwoman, out of keeping with all the rules of academic beauty, full and ample in her person, her cheeks glowing with vulgar health, her eyes shining with quiet happiness, her children swarming like summer bees, her house shining like a new clock, and her movements as regular as one of Murray's chronometers. There sits her husband, a sleek contented man, well fed, clean lodged, and softly handled, who glories in the good looks and sagacity of his wife, and eyes her affectionately as he holds the shining tankard to his lips, and swallows slowly and with protracted delight, the healthy beverage which she has brewed. Now, that is a beautiful woman; and why is she beautiful? She is beautiful, because the gentleness of her nature and the kindness of her heart throw a household halo around her person, adorning her as a honeysuckle adorns an ordinary tree, and impressing her mental image on our minds.—Such is beauty in my sight—a creation more honourable to nature and more beneficial to man, and in itself infinitely more lovely, even to look upon, than those shapes made according to the line and level of art, which please inexperienced eyes, delude dreamers, fascinate old bachelors, and catch the eye and vex the heart. M.

SPORTING OLIO.

(From Johnson's Shooters' Companion.)

THE FOWLING PIECE.

Of Gun Barrels.—The first object in a fowling piece is *safety*. Gunsmiths *prove* their barrels whilst in their *rough* state, and this is done with the idea that if they burst, the expense of further workmanship is saved; the consequence is, that a single barrel, weighing nearly *five pounds*, is reduced to *three pounds* nine or ten ounces: this reduction is confided to the workman, who, if careless or in haste, may take it from the *breech*, or that part of the barrel where the greatest strength is requisite; and when the barrels are laid together, and the rib soldered on, it is impossible to discover whether the filing has been too deep. The barrels undergo no *second proof*, and thus the gun too often becomes a *masked battery* to him who shoots with it.

So many barrels have burst, and occasioned permanent misfortunes, after having sustained the ordeal of the company's or Tower proving-house, and received their *marks* as a pledge of their safety, as evidently to shew that a barrel may bear that *one shock*, and still be very unworthy to be put into the hands of any one. The only mode of ascertaining whether a barrel is perfectly secure is, by *water proving*, after it returns from the *proof house*, and has apparently withstood that of fire.

There are various kinds, or rather qualities, of barrels, which pass under various denominations, such as *twisted stub* barrels, *wire twisted* barrels, *Damascus* barrels, and *common* barrels. *Twisted-stubs* are old horse shoe nails twisted together; there are also *iron-twisted*, inferior to the former. *Wire-twisted* are stubs drawn into wire, and then twisted and formed into the barrel. *Damascus* barrels are iron and steel *curled* together, which give the barrel a beautiful appearance. Wire twisted barrels are the best. Damascus barrels are inferior even to common twisted stubs; though, as they bear a foreign name, and as the peculiar curling of the iron and steel give them a pleasing appearance, they have of late been in request; and as the English gun makers found it inconvenient to import a sufficient number, they did not hesitate to manufacture Damascus barrels, and not more than one real Damascus barrel out of a hundred is to be met with. Whether they are originally from Damascus, I am not certain, but I am willing to believe so; at all events, several of what were called real Damascus barrels, which reached this country through Russia, are much superior to the *English Damascus* barrels.

Boring of Barrels.—I shall not attempt to describe the process of boring gun barrels, as this work is intended not for the mechanic, but the sportsman; besides, in every thing of this and a similar description, five minutes' inspection would do more than a volume of words; yet, as the *well-shooting* of the fowling piece materially depends upon the boring of the barrel, I shall not hesitate to state what kind of bore or cylinder I have found to throw the shot with the greatest force, as well as the greatest regularity. Many gun-makers, when speaking on this subject, assume an air of importance, and by mysterious nods and broken sentences, give you to understand, that the true and correct method of boring gun-barrels is a secret, which remains with them alone; but the fact is, that the art and mystery of boring barrels is imperfectly understood, and it not unfrequently happens, that a gun upon which every possible care has been bestowed in the boring, will not shoot so well as an ordinary or common barrel:—even the African guns, which, at the time of the slave trade, were furnished to the merchant, complete, for six shillings and sixpence, have been known to throw the charge remarkably well.

Some time ago, a fowling-piece came into my hands, the cylinder of which, for several inches from the breech, was a trifle wider than the remainder of the barrel. This gun shot remarkably well, better, in fact, than any I had ever before met with; and, conceiving this superiority must arise from the peculiarity of the bore, and having another very indifferent fowling piece, I had the latter rebored in the manner just described, and was pleased to find it answer the desired purpose in a manner that far surpassed my most sanguine expectations. Under these circumstances, I have no hesitation in recommending the above plan of boring barrels: the increase of width at the lower end should be but a trifle, just sufficient to be perceived when putting in the wadding, which will, of course, slide rather easier in that part.

The Length of the Barrel is another matter, which is still involved in doubt, though abundant evidence has been obtained to prove that the antiquated notion of long barrels carrying the farthest, is completely erroneous. After a great number of experiments, I have found that a barrel twenty two inches long, of the common fowling piece calibre (five eighths of an inch diameter) shoots fully as strong, if not stronger, than any other greater length, though the difference between twenty-two and twenty-eight, or even thirty inches, is not very great; but for any increase of length beyond thirty inches, the difference, or the decrease of force, would very much surprise any person who had never witnessed the experiment. I have shortened five different barrels, gradually, inch by inch for instance, and the result has invariably been the same; and in these experiments, great pains were taken in regulating the charge, so that in this respect, no perceptible variation could take place. Nevertheless, though a barrel twenty-two inches long (I have never tried one shorter) may impel the charge with more force than a greater length, yet I prefer a barrel somewhat longer, as it is pleasanter to load, and the aim may be much better taken with it: yet, for my own choice, I never would exceed thirty inches. I would not recommend a *very light* barrel, not from any fear of its bursting, since, if a gun is kept clean, there is not the *least danger*, supposing it to be properly loaded; but on account of the recoil, which will always be much greater than in a stout barrel.

At first sight, it may be asked how it happens that a long eighteen pounder carries farther than a shorter cannon? To which, it may be answered, that it is possible, an increase of length might be added with advantage to the longest eighteen-pounder in the service; since, on comparison, taking into consideration the difference of the calibre, a fowling piece barrel twenty-two inches in length, is proportionably longer than any cannon whatever.

If the bore or calibre of the fowling piece be made extremely wide, it will require a greater charge, and will of course admit a greater length of barrel.

MISCELLANEOUS.

THE CAPITOL AT WASHINGTON.

[So many of our readers have not seen the National Capitol, erected by the money of the people, and so worthy of its noble purpose, that we are tempted to copy from Elliott's Annual Calendar the following brief description.]

The Capitol of the United States is situated on an area enclosed by an iron railing, and including 22½ acres—the building stands on the Western portion of this plat, and commands by the sudden declivity of the ground, a beautiful and extensive view of the city, of the surrounding heights of Georgetown, &c. and of the windings of the Potomac as far as Alexandria. The building is as follows:

Length of Front,	352 feet	4 inches.
Depth of Wings,	121 do.	6 do.
East projection and steps,	65 do.	
West do. do.	83 do.	
Covering 1½ acre, and	1320 do.	
Height of Wings to top of Balustrade,	70 do.	
Height to top of Centre Dome,	145 do.	

The exterior exhibits a rusticated basement, of the height of the first story; the two other stories are comprised in a Corinthian elevation of pilasters and columns—the columns, 30 feet in height, form a noble advancing portico, on the East, 160 feet in extent—the centre of which is crowned with a pediment of 80 feet span: a receding loggia, of 100 feet extent, distinguishes the centre of the West front.

The building is surrounded by a balustrade of stone, and covered with a lofty Dome in the centre, and a flat Dome on each wing.

The Representatives' room is in the second story of the South wing—is semicircular, in the form of the ancient Grecian theatre—the chord of the longest dimension is ninety-six feet—the height to the highest point of the domical ceiling is sixty feet. This room is surrounded with twenty-four columns of variegated native marble, from the banks of the Potomac, with capitals of white Italian marble, carved after a specimen of the Corinthian order still remaining among the ruins of Athens.

The Senate Chamber in the North wing is of the same semicircular form, 75 feet in its greatest length and 45 feet high—a screen of Ionic columns with capitals, after those of the temple of Minerva Polias, support a gallery to the East, and form a loggia below—and a new gallery of iron pillars and railings, of a light and elegant structure, projects from the circular walls—the dome ceiling is enriched with square caissons of stucco. The Rotundo occupies the centre and is 96 feet in diameter, and 96 high. This is the principal entrance from the East Portico and West stair, and leads to the legislative halls and library. This room is divided in its circuit, into pannels by lofty Grecian pilasters or antæ, which support a bold entablature, ornamented with wreaths of olive—a hemispherical dome rises above filled with large plain caissons, like those of the Pantheon at Rome. The pannels of the circular walls are appropriated to paintings and bas relievos; of historical subjects. Passing from the Rotundo, westerly, along the gallery of the principal stairs, the Library room door presents itself. The room is 92 feet long, 34 wide, and 36 high; it is formed into recesses or alcoves for books on two sides, by pilasters, copied from the Portico of the Temple of the Winds at Athens,—a light stair in each corner of the room leads to a second range of alcoves, and the whole is covered by a rich and beautiful stuccoed ceiling. This room has access to the Western loggia, from which the view of the city and surrounding country appears to great advantage. Besides the principal rooms above mentioned, two others deserve notice, from the peculiarity of their architecture—the round apartment under the Rotundo, enclosing 40 columns supporting ground arches, which form the floor of the Rotundo. This room is similar to the substructions of the European Cathedrals, and may take the name of Crypt from them: the other room is used by the Supreme court of the United States, of the same style of architecture, with a bold and curiously arched ceiling; the columns of these rooms are of a massy Doric imitated from the temples of Paestum. Twenty-five other rooms, of various sizes, are appropriated to the officers of the two Houses of Congress and of the Supreme Court, and 45 to the use of Committees; they are all vaulted and floored with brick or stone. Three principal stair cases are spacious and varied in their form; these with the vestibules and numerous corridors or passages it would be difficult to describe intelligibly: we will only say, that they are in conformity to the dignity of the building and style of the parts already named. The building having been situated originally on the declivity of a hill, occasioned the West front to show in its elevation one story of rooms below the general level of the East front and the ends; to remedy this defect, and to obtain safe deposits for the large quantities of fuel annually consumed, a range of casemate arches has been projected in a semi-circular form to the West, and a paved terrace formed over them: this addition is of great utility and beauty, and at a short distance exhibits the building on one uniform level—this terrace is faced with a grass bank, or glacis, and at some distance below another glacis with steps leads to the level of the West entrance of the Porter's Lodges—these, together with the piers to the gates at the several entrances of the square, are in the same massy style as the basement of the building; the whole area or square is surrounded with a lofty iron railing, and is in progress of planting and decorating with forest trees, shrubs, gravel walks and turf.

Never make a verbal agreement, when it can be reduced to writing.

POSTAGE.

The speaker laid before the House of Representatives of the United States, on Wednesday, 21st ult. a letter from the Postmaster General, transmitting the nett amount of postage accruing at each post office in the United States, for one year ending 31st March, 1828, and showing the nett amount in each State and Territory; which letter and statement were laid on the table, and two thousand extra copies thereof ordered to be printed.

The following is a recapitulation of the statement referred to, showing the nett amount of postage which accrued in each State and Territory:—

New York,	$252,875	99
Maine,	26,997	64
New Hampshire,	14,582	76
Vermont,	14,672	05
Massachusetts,	101,855	58
Rhode Island,	14,979	82
Connecticut,	32,846	45
New Jersey,	17,511	65
Pennsylvania,	137,729	89
Delaware,	4,922	09
Maryland,	61,022	71
Ohio,	36,473	55
Michigan Territory,	2,355	16
District of Columbia,	11,681	50
Canada and Kingston Mail,	6,122	85
Virginia,	73,406	74
North Carolina,	28,229	77
South Carolina,	45,148	09
Georgia,	44,005	91
Kentucky,	26,792	95
Tennessee,	21,945	53
Alabama,	18,106	11
Mississippi,	10,461	25
Louisiana,	28,893.	60
Indiana,	7,905	00
Illinois,	3,099	94
Missouri,	8,551	52
Arkansas Territory,	1,195	46
Florida Territory,	3,802	73
Grand Total,	$1,058,204	34

Patent for Making Leather Water Proof.

Specification of the Patent granted to Charles Bagenall Fleetwood, *of Parliament street, Dublin, for making Leather, and other articles, water-proof.*—Dated February 28th, 1824.

My new invented liquid and composition for making leather and other articles, water-proof, consists of a certain compound of resinous, oleaginous, and elastic matters, the proportions of which, and the mode of mixing, I am about to describe. My process is as follows: I dissolve 10 lbs. of caoutchouc, or Indian rubber, in 20 gallons of pure spirits of turpentine, by putting them both into a vessel capable of holding at least 35 gallons; 40 perhaps would be as well;—the caoutchouc should be cut into pieces, or slices, of about 1-16th part of an ounce weight, to hasten the solution. I then immerse the vessel into a boiler, previously filled with cold water, and apply the fire so as to produce the boiling of the water, occasionally supplying the wastes caused by evaporation. In this situation it remains until a perfect solution of the caoutchouc in the spirits of turpentine is effected; I then dissolve 150 lbs. weight of pure bees' wax in 100 gallons of pure spirits of turpentine, adding thereto 20 lbs. of Burgundy-pitch, and 10 lbs. of gum frankincence. The solution of these articles, I obtain by the same means described for dissolving the caoutchouc. To these two matters or solutions, when mixed together, I add, when quite cold, 10 gallons of the best copal varnish. The whole of these materials are then to be put together in a large reservoir, where the compound may be diluted by adding 100 gallons of lime water, pouring in five gallons at a time, and stirring it continually for six or eight hours; which agitation must be repeated whenever any of the composition is to be taken out of the reservoir, either to be bottled or casked. In order to colour this composition, when it is required to be rendered black, 20 lbs. weight of the best lamp-black should be mixed up with 20 gallons of the purest turpentine spirits, (which 20 gallons should, under these circumstances, have been deducted from the previous mixture;) this, when properly blended, is to be added to the composition, but that should be done previous to the introduction of the lime-water. The composition, when thus prepared, is to be laid on the leather by means of a painting-brush, and rubbed into the surface, which will render the leather, after the composition has become dry, impervious to water, and at the same time, perfectly soft and pliable. Though I have thus minutely described the comparative proportions of each material, yet I do not mean to confine myself precisely to those respective quantities, nor to the precise mode in mixing and preparing them, but I have stated such proportions and such process as the best that I am acquainted with, and which I am, from considerable experience, induced to adopt, and recommend.

[*Repert. Pat. Inv.*

ADVENTURES OF A HOG.

Mr. Gideon Long, of Butler county, raised a hog which he sold a few weeks since to John Denman, of his neighbourhood, for *sixty-six* dollars. He was shortly afterwards offered forty dollars for his bargain; but determining to take it to Cincinnati, he put it on board of a canal boat for that place. On his route, without his knowledge, the hands on board exhibited it as a show, charging 6¼ cents for a sight. When he arrived at the city, an immense crowd visited it, and paid for the sight.—After keeping it for some time, he was offered $300 for the hog, agreed to take it, and received $150 on the contract. But it was not to be delivered until the whole was paid, and while waiting for the balance it was secretly conveyed away. Mr. Denman determining to pursue the noble animal, embarked on board a steam boat and followed to Louisville, where he had the satisfaction of finding his hog.—It had been exhibited for some time to great advantage. Taking possession of the hog, Mr. Denman descended the river with it several hundred miles, and finally sold it for three hundred and sixty dollars; having realized from it, in all, eight or nine hundred dollars. It weighed twelve hundred and sixty pounds, and in his route Mr. Denman was offered $2500 for it safely delivered in New York. The purchaser, it is expected, will undertake its transportation to the eastern cities, to show the Yankees what kind of hogs we raise in Ohio.

[*Lebanon (Ohio,) Star.*

(From late English papers.)

Ants.—The labours and policy of the ants, are when closely examined, still more wonderfull perhaps, than those of the bees. Their nest is a city consisting of dwelling-places, halls, streets, and squares, into which the streets open. The food they principally like is the honey which comes from another insect found in their neighbourhood, and which they, generally speaking, bring home from day to day as they want it. Late discoveries have shown that they do not eat grain, but live almost entirely on animal food and this honey. Some kinds of ant have the foresight to bring home the insects on whose honey they feed, and keep them in particular cells, where they guard them to prevent their escaping, and feed them with proper vegetable matter which they do not eat themselves. Nay, they obtain the eggs of those insects, and superintend their hatching, and then rear the young insect until he becomes capable of supplying the desired honey. They sometimes remove them to the strongest parts of their nest, where there are cells apparently fortified for protecting them from invasion. In those cells the insects are kept to supply the wants of the whole ants which compose the population of the city. It is a most singular circumstance in the economy of nature, that the degree of cold at which the ant becomes torpid is also that at which this insect falls into the same state. It is considerably below the freezing point; so that they require food the greater part of the winter, and if the insects on which they depend for food were not kept alive during the cold in which the ants can move about, the latter would be without the means of subsistence.—*Objects, Advantages, and Pleasures of Science.*

The Newspaper Press.—It is calculated that upwards of 230,000 daily and two three-day Newspapers, and about 70,000 Sunday papers, are sold every week; so that nearly 70,000l. per annum must be paid to Government, for Newspaper Stamps alone. The total amount of Advertisement Duty is enormous. The number of persons of every description in Newspaper Establishments in London is more than 1,200. The number of Newspapers sold weekly in the country and in Scotland and Ireland, cannot be less than 170,000; and it may be fairly calculated that the entire Newspaper Press in Great Britain gives employment to at least 4,000 persons.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 6, 1829.

☞ **Trustees Meeting.**—The next meeting of the Trustees of the Maryland Agricultural Society will be held on Thursday, the 12th inst., at Eutaw, the residence of B. W. Hall. It is hoped the members will be punctual in their attendance, as there will be submitted the report of the Committee appointed "to suggest such plans and arrangements as may best conduce to the efficacy and utility of future exhibitions;" also a communication from M. De Molion, ancien éleve de l'école Polytechnique, chevalier de l'ordre royal de la Légion-d'Honneur, &c. &c. &c.

☞ For sale, an interest in the "American Farmer" establishment. A certain and handsome result would be guaranteed to the purchaser, and, with a view to the still greater extension of the paper, it would be preferable, though not indispensable, that he should reside, and act as agent, in one of the states south of the Potomac. Inquire of the Editor.

☞ **Large Parsnip.**—In a letter to the Editor, Richard Davis, Esq. of Bedford county, Va., says: "This fall was drawn from my garden, a parsnip measuring four feet four inches long."

Mulberry Seed.—The American Institute, a society in New York, associated for the purpose of encouraging Agriculture, Commerce and Manufactures, has deposited in New York a quantity of Mulberry Seed, to be distributed gratis to the members of the Horticultural Society, members of all learned, religious, and other institutions, possessed of ground in which the seeds can be cultivated, and to all Farmers in the U. States—on the following conditions;—that the quantity to be given be in proportion to the ground to be planted; that the seed be taken care of and managed according to printed directions to be furnished by the Committee, and that the plants be kept till fit for transplanting in nurseries. These conditions being complied with, the persons receiving the seed "shall have a right to dispose of the plants *as his own property*, at a reasonable price." The committee of the Society also claim the privilege of visiting and inspecting the grounds sown, and report to the society the number of plants, &c. The seed are left at P. Canfield's Lottery office, No. 179 Broadway, New York.

Hemp.—It is stated in the Ohio State Journal, that an application is about to be made to the Legislature of Ohio, for a charter to a company from abroad, with an extensive capital, to be invested in the culture and manufacture of hemp in that state. One of the gentlemen, a man of distinction and wealth, is now in Columbus. If the state of Ohio now offers inducements for the investment of such extensive capital in the culture of hemp, what will it do when the Baltimore and Ohio Rail-road shall go into operation, and, by the facilities it offers for the transportation of the article, increase the value of it in Ohio nearly 100 per cent.?

Extract to the Editor, dated Newbury, S. C., January 19, 1829.

"We had, about a week ago, some of the coldest weather experienced for some time. In January, 1827, we had a hard spell; but in Columbia it was said that one morning of the last spell was two degrees colder than it was ever known in Carolina.—I doubt the correctness of that observation; but it was cold enough to have injured the small grain crops exceedingly."

Dear Sir, *Georgetown, Jan. 24, 1829.*

I write this to let you see with what attention I read your paper, although I may not profit by it.—In your last number I was much surprised at the difference in quantity of land required for maintenance of a horse, (middle column, page 355, at the bottom;) medium quality of land 5 acres, on rich soils 4 acres, poor land 6½ acres. Page 356, Wm. Darby (population of Great Britain,) at the beginning, says one acre is sufficient.

(From the Hunting Directory,) No. 39, page 310: Merlin, a fox hound bitch, bred by Col. Thornton, ran a trial, which she performed in 7 minutes and ½ a second, the distance four miles. For the speed I want faith, and the ½ second is too exact. I have now in my hand an ear of corn; it grew on a field on my land, with 36 rows, and once had upwards of 40 grains in a row; but it has been so reduced by giving away that I have lost the number, and forget the amount. It has been sent for from Alabama, to be sent by post, so as to weigh the weight of a letter, by special direction. I mean to keep the remains as a curiosity.

☞ **The Baltimore Market.**—The intelligence from England has caused a depression in the flour market, or rather suspended operations. We can hear of no fixed price for the article from stores—the wagon price yesterday was $8.00.

Items of Late Foreign News,

As connected with the Agricultural interest.

By the packet ship Henri IV. from Havre, and the George Clinton from Liverpool, intelligence has been received at New York from France to the 24th and from Liverpool to the 27th December.—From the Evening Post we copy the following items:

A Paris article of December 23d, says, that the exchange of despatches between the cabinets of England, Austria and Russia, has been very active of late. A letter in the Augsburgh Gazette, dated Odessa, Dec. 2d, says, that letters entitled to credit, announce that Varna is not in any way blockaded by the Turks; that Bazardjik and the other forts in Bulgaria, are still occupied by a division of the grand Russian army, and by means of temporary fortifications are placed out of danger from surprise; and finally, that these troops were about to enter into winter quarters on the right bank of the Danube. A letter of the 15th from Vienna, on the same subject, says, "strong Russian divisions remain on the right bank of the Danube near Bazardjik, Kustendsci, and Ibrail; they protect these important positions, and preserve the communications with Varna. The remainder of the army has taken up winter quarters in the principalities"—These accounts are rather more favourable for the Russians than those received by the last arrival, but still are not at all inconsistent with the idea that they have sustained very great losses during the campaign.

The prices of Wheat in England are somewhat lower. A Liverpool paper of the 27th says—"We have to report a good supply of Wheat and Oats from Ireland for Tuesday's market; but few imports from abroad or coastwise. The transactions in Wheat were to a limited extent, at a decline on new Irish of 3d. to 4d. per 70 lbs. from the prices of Tuesday last, and all other descriptions were depressed in value. Flour also 1s per sack cheaper.—American flour 40 to 43; ($8,87½ a $9,56¼) Indian corn 38 a 39s per quarter, about $1 a $1,25 per bushel.

Extract of a letter from Liverpool, Dec. 27.

"Our Corn market continues very flat, and prices almost nominal. The little doing in Flour is at 42s, and by retail at 44s a 45s.; Indian Corn, 36s a 39s.—The average of wheat per returns to-day, is 74s 7d, aggregate 74s 5d. Aggregate of Barley 39s 2d—of course the duty remains the same.

We had a better demand for Cotton yesterday and about 5000 bales sold; but previous prices are scarcely maintained. The sales this week amount to 10,200 bales."

Liverpool, Dec. 27.—The sales of Cotton this week ending 26th, are 10,250 bags, including 4400 Uplands, at 5¾ to 6¼; 820 Orleans, at 6¼ to 8¼; 700 Alabamas, 5¾ to 6¼d. Import, 9930 bags. 4517 bbls. Turpentine have changed hands at 12s to 12s 6d; and about 390 bbls. Ashes at former prices; 50 casks Carolina Rice at 17s to 19s.

Corn Exchange.—We have to report a good supply of Wheat and Oats from Ireland, for Tuesday's market, but few imports from abroad. The transactions in Wheat were to a limited extent, at a decline on new Irish of 3d to 4d per 70 lbs. from the prices of Tuesday last, and all other descriptions were depressed in value. Flour also, 1s per sack cheaper. American Flour, 40s to 43s; Indian Corn, 38s to 39s.

Friday Evening, Dec. 26th.—The import since Tuesday has been trifling. Wheat is a shade lower. Other articles generally dull, without variation in price.

Liverpool, Dec. 23.—A cargo of American Indian Corn has arrived since our last, and has been sold at 36s.

London, *Dec.* 25.

It is stated from Moscow, under date of the 15th ult. that notwithstanding the abundant harvest of wheat in almost all the provinces most productive of the article, prices have been maintained very high in the government of Arel, Tamboff, and others, owing to the incessant demand kept up for the ports of the Baltic, and the bad crops in other countries.

The same accounts are given from Tagennoc, under date of 5th [17th] ult. An order has been received by a commercial house, from Trieste, for 22,000 chetwerts, which immediately forced up the price of the article from 8½ to 10 roubles. It is not stated, however, how this order is to be executed; and, under existing circumstances, the issue of the Black Sea Wheat, through the Hellespont, is impracticable.

At the market of Amsterdam, wheat rose from 10 to 15 florins on the 16th inst. and considerable purchases were made for exportation and on speculation; other kinds of grain remained stationary.

Bonded Corn.—Within the last two or three weeks, there have been removed from the Bonding warehouses at this port, nearly 25,000 quarters of wheat, 7,000 qrs. barley, 4,000 qrs. of beans, and 1,500 qrs. of pease, for home consumption.

[*Hull Packet.*

It appears by the official returns, that in the month of November, 410,746 qrs. of foreign grain, nearly all wheat, paid duty for home consumption, and 414,256 qrs. (of which, however, only 104,991 qrs. were wheat) remained in warehouse at the end of the month. The quantity of foreign grain actually introduced in November, and that remaining available for home consumption at the end of the month, make, therefore, about 850,000 qrs. in all. Considerable importations seem to be still in progress, so that the aggregate supply to be derived from abroad, promises to be greater than, under the unfavourable circumstances of the harvests of other countries could have been at first anticipated.

[*Globe.*

AGRICULTURAL REPOSITORY, SEED STORE AND NURSERY.

SINCLAIR & MOORE offer for sale, a full stock of their approved Bar-share, and Freeborn or Wood's Patent Ploughs. Also, the Self-sharpening Plough, of various sizes, which are of easy draft, perform well, and possess the important principle of retaining a sharp point until a steel bar of from 12 to 16 inches is worn away, which may then be renewed by a common smith without difficulty. They have also commenced manufacturing the justly celebrated Plough, improved and patented by Stephen McCormick, of Virginia, which was exhibited here at the last cattle show of the Maryland Agricultural Society, and spoken of in the report of the committee on implements—(See Am. Farmer, No. 34, vol. 10, Nov. 7th, 1828.) Of these, and other kinds, with their extra shares, &c. a constant supply is kept. Also, *Wheat Fans* of the best construction, which have received their improvements in our establishment; Corn Shellers, Cotton Gins, Grain Cradles and Scythes; Kinsey's cast-steel Axes and Mattocks, Picks, Shovels, Spades, Hoes, Trace Chains, &c. &c.

Also, a full stock of *fresh Garden Seeds*, as detailed in our catalogue; Clover, Timothy, Orchard Grass, Herd's Grass, Lucerne, white Clover, and several kinds of early and crop Corn for seed.

And an extensive Nursery of *Fruit and Ornamental Trees*, Thorn Quicks, Grape Cuttings, &c.; comprising nearly all the choice varieties of fruit trees.

This nursery has the constant personal attention of Robert Sinclair, whose experience and attention will enable us to warrant each kind to be true and genuine. The nursery is situated about three miles from the city, and trees can be taken fresh from the ground to fill any orders which may be left at the nursery or at our store; where catalogues of seeds and trees can be had gratis. *Balt. Feb.* 2, 1829.

SILK WORM EGGS.

I have yet on hand a large quantity of Silk Worm Eggs, of the best Italian stock, which I will dispose of on the following terms, to wit: To any person who will enclose to me 5 dollars by mail, I will send by mail from 5,000 to 10,000 eggs, with ample directions for the whole process of making silk and preparing it for market, as well as for the cultivation of the *white mulberry*. Personal application may be made to me at the office of the American Farmer, basement story of the City Hotel, North Calvert street. Application should be made soon, as the season for sending the eggs by mail is rapidly passing away.

Baltimore, Md. GIDEON B. SMITH.

ALMANAC.

1829. FEBRUARY.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday....... 7	6 52	5 8	10 16	9 48
Sunday......... 8	6 51	5 9	10 18	10 54
Monday........ 9	6 50	5 10	10 20	11 59
Tuesday,...... 10	6 48	5 12	10 21	Morn.
Wednesday... 11	6 47	5 13	10 26	1 1
Thursday,..... 12	6 46	5 14	10 28	1 58
Friday,......... 13	6 45	5 15	10 30	2 51

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, Scrubs, ground leafs, $5.00 a 10.00—seconds, ordinary, 3.50 a 4.50—red, 4.50 a 6.50—fine red, 6.00 a 8.00, for wrapping—Ohio, common, 5.00 a 8.50—good red, 6.00 a 8.00—yellow, 10.00 a 16.00—Rappahannock, 2.50 a 3.50—Kentucky, common 3.50 a 5.00—wrapping, 4.00 a 6.00.

Flour—white wheat family, $9 50—super. Howard-st. (sales) 8.12½ a 8.25; city mills, 8.00 a 8.25; Susquehanna, 8.00—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.60 a 1.70—best white wheat, 1.80 a 2.00—ordinary to good, 1.50 a 1.70—Corn, old, .48—new corn, .46 a .48—in ear, per bbl. 2.25—Rye, bush. .50 a .55—Oats bush. .26 a .28—Beans 1.25—Peas .55 a .60—Clover seed, 4.50 a 5.00—Timothy, 1.50 a 1.75—Orchard Grass 2.25 a 2.50—Herd's, .75 a 1.00—Lucerne 37½ a .50 lb.—Barley, .55 a 60—Flaxseed, 1.00—Cotton, Virginia, .10 a .11—Lou. .13—Alabama, .10 a .11 Mississippi .11 a .13—North Carolina, .10 a .11—Georgia, .9 a .12—Whiskey, hhds 1st pf. .24—in bbls. .25 a 25½—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $225 a 230; Country, dew-rotted, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ a .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 a .8—Pork, 4.50 a 5 50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ a 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 a 5.00.

Marketing—Apples, pr. bush. 1.25 a 1.50; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, .75 a 1.00; Geese, .50 a 62½; Butter, lb. .25 a 37½; Eggs, .15; Potatoes, Irish, bush. .50; Sweet, do. .50; Chickens, dozen, 3.00 a 3.50; Ducks, doz. 3.00 a 3.50; Beef, prime pieces, lb. .8 a .10; Veal, .8; Mutton, .6 a .7; Pork, .6; young Pigs, dressed, .75 a 87½; Sausages, per lb. .8; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Pork, 5.00 a 5.50 cwt.; prime Beef, on hoof 5.50 a 6.00.

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AGRICULTURE.

(From Sir John Sinclair's Code of Agriculture.)

ON WARPING LAND.

There is no circumstance, which proves more clearly, the advantages to be derived from minute and extensive inquiries, adopting for their basis, the political divisions of the country, than the discovery of the process called *warping land*. This most valuable species of improvement, applicable wherever tides in their course keep alluvial matters in a state of suspension, was confined to a small district on the banks of the Humber; and though it had existed there for about 50 years, yet not a syllable concerning it, had ever found its way into a page of printed husbandry, and it might have remained unknown for many years longer, had not the Board of Agriculture undertaken the survey of the kingdom, in the course of which it was brought to light.

In discussing this subject, it is proper to consider; the origin of the practice; the nature of the improvement; the means of effecting it; the season most suitable for the purpose; the expense and profit; the mode of cultivation and produce; the situations where it may be attempted; and the improvements and the extent of which it is susceptible; together with some account of a species of river warping in Italy.

1. *Origin of the Practice.*—It is said, that the person who made the first experiment of warping, was Mr. Richard Jennings of Armin, near Howden, in Yorkshire, who tried it about the year 1743. But it was about the year 1753, before it was attempted by any other person: and it remained in obscurity, till the beginning of November 1793, when it was made public by three eminent farmers, who had been appointed by the Board of Agriculture, to draw up a report of the husbandry of the West Riding of Yorkshire. As the Board had only met for the first time, on the 4th of September preceding, the discovery of warping, in less than two months, is a striking proof, of the zeal and activity of those, appointed to carry on its inquiries.

2. *The Nature of the Improvement.*—The water of the tides that come up the Trent, the Ouze, the Dun, and other rivers which empty themselves into the great estuary of the Humber, is muddy to an excess; insomuch, that in summer, if a cylindrical glass, from twelve to fifteen inches long, be filled with that water when the tide is high, it will presently deposit an inch, and sometimes more, of what is called *warp*, or a species of mud of great fertility. This substance probably originates from a variety of earthly particles, washed down by the rivers to their mouths, where they are mixed with saline and other matters, with which the sea abounds, and by agitation are rendered so fine, as to be suspended, when the water is agitated by the tide. Some of it was analysed by an eminent chemist, whose report was, that it contained mucilage, and a very minute portion of saline matter; a considerable quantity of calcareous and most probably aluminous earths; the residue mica and sand; the latter in by far the larger quantity, and both in very fine particles.

3. *Mode of carrying the Plan into Effect.*—The plan of securing by embankments, rich alluvial soil, has been practised for ages; but it was reserved for modern times, to conduct mud-laden waters, *artificially*, from the estuary or river in which they flowed, for the purpose of furnishing low and barren ground with a sufficient depth of fertile soil. The mode of executing the plan is extremely simple. When the improvement is determined on, the ground must first be surrounded with banks, from three to four, six, or seven feet high, according to circumstances; that the water may be of a proper depth on the land to be warped, and to prevent the contiguous lands, whether cultivated or not, from being overflowed. The tide is then admitted, and detained, until the sediment in the water is deposited upon the surface of the land. To render the plan efficacious, there must be a complete power over the water, either to keep it out, or to let it in, according to circumstances; and to accomplish these objects, there must be, not only a cut or canal made to join the river, but a sluice, (provincially *clough*,) to open or shut, as required. The effect is very different from that of irrigation, for it is not the water that produces the effect, but the warp or mud; and the great object is, not to manure *but to create a soil* of the richest quality, and that at a moderate expense.

4. *The Season for Warping.*—June, July, and August, are undoubtedly the best months for warping, on account of their being in general the driest seasons of the year. Land, however, may be warped in any season, provided the weather be dry, and the fresh water in the river very low. When the season is wet, and the river full of fresh water, this operation cannot be advantageously executed. The fresh water, in this case, stems the tide, and occasions a degree of stagnation, favourably to the repose of the prepared matter, and consequently it is not half so muddy, nor capable of depositing the same quantity of sediment, as when the tide flows in more freely, and stirs up the mud. Warping, in spring, is attended with no peculiar advantage, more than in summer, as there can be no crop the first year. The sediment must lie to soak and dry, before the ground can be cultivated.

5. *The Expense and Profit.*—It is impossible to calculate the expense, without ascertaining the situation of the lands proposed to be warped; the sum it will require to embank the lands, to build the *cloughs* or sluices,—to cut the drains, &c.; and the quantity of land, the same drains and cloughs will be sufficient to warp; for the greater the quantity, the less will be the expense per acre. There are *great quantities* of land, however, which might be warped, for so small a sum, as from 3*l.* to 4*l.* per acre; an expense trifling, when compared to the profit that is derived from the operation. Mr. Webster, at Bankside, in Yorkshire, purchased a farm of 212 acres, which he warped. The price was 11*l.* per acre, and the expense of warping about 12*l.* more, or 23*l.* in all. It was immediately rendered by warping worth 70*l.*, and in some parts, even 100*l.* per acre, at which price warped land frequently sells: but even at 70*l.* the profit is immense. Mr. Webster warped some moor-land, worth only 1*s.* 6*d.* per acre, (for such land there is in that neighbourhood,) and could immediately let it for 5*l.* per acre.

6. *The mode of Cultivation and Produce.*—The best mode of cultivating new warped land, is to sow it with clover, and to let it lay under that crop for two years, in order that it may be brought into a state fit for corn.—It does not answer to sow land, immediately after it is warped, with wheat, even though fallowed; but after white, or red clover, for two years, a good crop of wheat may be relied on, unless injured by the slug, which sometimes makes its appearance.

Nor is it proper, when land is warped, to plant it with potatoes, or to sow it with flax, being at first of too cold a nature; though these crops may answer, if the land be not too strong for potatoes, after it has been for two or three years in cultivation. In the quality of warped land, there are most essential differences; some will be very strong, and in the same field some will be very friable. The land nearest the drain is in general the lightest, owing to the quantity of sand that is deposited as soon as the water enters the field: the land farthest from the drain, is, in general, the best. The produce of warped land varies much; but in general, it may be stated, of wheat, at from 20 to 40 bushels; of beans from 35 to 50, and in some rare instances 90 bushels; and of oats from five to eight quarters per acre. Warped lands require manure, and will not carry many crops without its aid, even where the situation is dry, and the soil fertile.

7. *Can the Process be extended?*—Some doubts are entertained, whether this great repository of highly prepared matter in the Humber, may not be exhausted. But there seems no just ground for such apprehension, when the great extent of the estuary in which it is found, is considered, or the vast tract of country, which, for ages, has been pouring down these valuable substances into its bosom. At the same time, it would be desirable to remove every doubt of that sort, by as accurate examinations of the banks or the bed of the river and shoals in it, as is practicable in such cases. If upon inquiry it should be ascertained, that the quantity of warp is as immense, as there is reason to expect, it is to be hoped, that such a treasure, surpassing perhaps, any other that the country is possessed of, will not be neglected. We have the means in our power, of converting land worth only a few pence, to yield a rent of 5*l.* per acre per annum; or in other words, of transmuting *copper into gold*. The efforts made in Egypt, to obtain, and to secure the fertility of its soil, in circumstances not very dissimilar, are well known; and shall nothing be done by the British Government, to promote an imitation of the husbandry of the Nile, on the banks of the Humber, and of other rivers where it may be found practicable? Why not give some species of public encouragement to so great a national object? more especially as the valuable substance in question, (silt or warp,) is not confined to the Humber, but is to be met with in many of our other rivers and arms of the sea, in great perfection and abundance.

8. *Of River Warping in Italy.*—From some late accounts which have been published, of the agriculture and statistics of Italy, it appears, that a species of warping has been long known in Tuscany. It is there called *calmata*. The rivers in that country, carry down with them vast quantities of mud and sand, by which their discharge into the sea is impeded, and great marshes are formed, not only at the mouths of these rivers, but in their courses, when they are passing from one level to another. Torricelli, it is said, was the first who taught his countrymen to enclose the marsh with a dyke or embankment;—to admit, into this enclosure, the water of the rivers;—to force this water, by means of sluices, to remain stagnant as in a lake, so as to deposit its mud;—and by the sediment so produced, to raise the level of the bottom. At one time, three or four inches of earth has been often deposited;—the operation has been several times repeated in the course of a year;—and the level so much raised, that the ground is no longer liable to be overflowed by the river. The soil thus acquired, is of the highest fertility; and an instance is mentioned, of a piece of ground thus treated, which had yielded 25 measures of wheat from one. Necessity was the parent of this operation in Italy; whereas, on the banks of the Humber, it seems to have originated from accident, and has been carried on, by a zeal for improvement, and the prospect of gain.

AGRICULTURAL AND MANUFACTURING PRODUCTIONS.

[An esteemed friend, and active member of Congress, has sent us the following letter of the Secretary of the Treasury on subjects highly interesting to agriculturists. It appears to us that more difficulty will be experienced in carrying the plan into execution than the Secretary is aware of. We will state a case, remarking that this is but one of a very large class: It is known that large quantities of grain are continually arriving at Baltimore from Pennsylvania *via* the Susquehanna. This grain is brought here in bulk, is either transshipped for transportation to other states, or landed, mixed with other grain, and ground into flour. Now in what manner will it be possible for the custom-house to take account of this grain and set it down to the proper state, and especially after it is ground into flour in Baltimore?

The forms which accompany the letter, and to which reference is frequently made by the Secretary, are omitted, as they are too long for insertion—they are interesting, however, only to the officers whose duty it shall be to execute the plan.]

Letter from the Secretary of the Treasury.

January 16, 1829.--Read, and so much thereof as relates to imposts referred to the Committee of Ways and Means; the residue to the Committee on Commerce.

Treasury Department, Jan. 15, 1829.

Sir: In answer to so much of the resolution of the House of Representatives of the 26th of April, 1828, as directs the Secretary of the Treasury to "report to the house upon what articles imposts are laid by the present laws of the United States, so high as to prevent their importation; the yearly quantity of such articles imported from the commencement of the present federal government to the time when the importation of such articles ceased; and showing also the different duties imposed upon such articles, and the yearly revenue arising therefrom, until the time aforesaid," I have the honour to transmit herewith a letter from the Register of the Treasury, dated the 13th inst. The reply of the Register to the first clause of the first part of the resolution, as above set forth, being in the negative, supersedes a reply to the remaining clauses.

The resolution further directs the Secretary to report to the house "the best practicable measure in his opinion, for ascertaining the quantity of the agricultural and manufacturing productions of the states transported coastwise from one state to another, and not intended for foreign exportation; and showing of what state such productions are the growth or manufacture, and to what state exported."

In endeavouring to devise measures that may meet, in an adequate manner, the object of this branch of the resolution, obstacles have presented themselves. The first arises from the consideration, that, when the productions are transported from state to state, the shipper may not know what disposition is intended to be made of them. He may not be the owner; or, if the owner, can only declare that he does not intend to export them to a foreign country. But this may subsequently be done by the purchaser in the state to which they are transported.

Another obstacle arises from difficulties that would probably exist in distinguishing the productions of one state from those of another, where geographical lines, constantly liable to be passed, indicated little or no difference in the nature of the productions. Perhaps this difficulty might be overcome by requiring the manufacturers of articles and growers of produce to have the packages in which the articles were put up always properly marked with the name of the state where they were produced or manufactured.

Such a regulation being adopted, the mode which suggests itself for ascertaining the quantity of articles, the produce or manufacture of one state, transported to another state, and not intended for foreign exportation, will be, to require the officers of the customs to keep accounts of the transportation of all articles of the produce or manufacture of the United States from their districts, respectively, to districts in other states, agreeably to the accompanying form marked A.; of the transportation of such articles to their districts from districts in other states, agreeably to the form marked B; and of the exportation of such articles from their districts to foreign ports, agreeably to the form marked C.—Transcripts of these forms to be rendered annually to the Register of the Treasury. In order to enable the officers of the customs to keep such accounts, every shipper of the articles in question from one state to another, should be required to make out duplicate invoices, agreeably to the forms marked E. and F.; one to be delivered to the master of the vessel, and the other to the chief officer of the customs of the port from which the vessel is about to depart. The term chief officer is here used instead of collector, because transportations will often be made from ports of delivery only, where collectors do not reside. These chief officers will have to keep similar accounts with the collectors, rendering them to the collectors, who will include them in their own, when rendered to the Treasury.

From the duplicates of the invoices, delivered as above to the captains of coasting vessels, they should be required to make out duplicate manifests, agreeably to the form marked D., one to be delivered to the chief officer of the customs at the port of departure, and the other to such officer at the port of arrival. In the case of exportations to foreign ports, from one state, of articles, the produce or manufacture of other states, duplicate invoices should also be made out by the shippers, agreeably to the form marked G., one of which should be delivered to the captains of the vessels, and the other to the collectors of the customs of the districts from which the vessels depart.

From the duplicates of the invoices thus delivered to the captains of the vessels, they should be required to make out manifests, (similar to form marked D., with suitable variations,) for the purpose of delivering them to the collectors of the customs. From these the latter would be enabled to state the accounts, to be kept agreeably to the form C. Then, by deducting the quantity of any article, the produce or manufacture of one state, exported from another state to a foreign port, from the quantity of such article transported to such state from other states, in the manner exemplified in form B., the difference will be the amount of such article consumed, including the amount remaining on hand in such state, at given periods.

Account marked H. will show the manner in which the amount of articles of one state, remaining on hand in another state, at the end of a year, is to be introduced into the accounts of succeeding years.

It will be perceived that the whole of the foregoing plan has reference only to articles transported coastwise from state to state; being the only mode of transportation within the purview of the resolution.

I have the honour to remain,
With great respect,
Your obedient servant,
RICHARD RUSH.

The hon. Speaker of the
House of Rep. U. S.

—

Treasury Department, Register's Office,
13th January, 1829.

Sir: In answer to that part of the resolution of the House of Representatives of the 26th of April, 1828, referred to this office, "requesting the Secretary of the Treasury to report to the House of Representatives upon what articles imposts are laid by the present laws of the United States, so high as to prevent their importation, the yearly quantity of such articles imported from the commencement of the present federal government to the time when the importation of such articles ceased; and showing also the different duties imposed upon such articles, and the yearly revenue arising therefrom until the time aforesaid," I have the honour to report that a very careful examination of the various articles imported annually from the commencement of the government, has been made; but it does not appear that any article has ceased to be imported into the United States from the amount of the duties imposed upon it.

JOSEPH NOURSE,
Register.

Hon. Richard Rush,
Secretary of the Treasury.

FARMERS' ACCOUNT BOOKS.

Mr. Skinner, *Hamilton county, Ohio, Jan.* 1829.

I am far from presuming that any exhibit of mine will entitle me to be considered among the competitors for the premium you offer, for the best mode of keeping farmers' accounts, in the 41st No. of the current volume of your valuable paper.—Nevertheless, aware of the importance of the subject, I will not withhold my little stock of information from you. To some of my fellow labourers of the glebe, situated something like myself, it may, *perhaps*, afford some useful hints. If you should think so, this communication is at your service.

I must here, in the first place, observe that a different system of accounts may be kept in a slave, from that which is absolutely required in a free state, where there are separate settlements to be made with every labourer, who has the right of keeping his own accounts, and to whom the employer is always willing to give the satisfaction, especially where the hireling has kept no reckoning of his own, but has confidently relied on the accuracy of the person whom he serves. I have now lived on a farm for nearly twelve years, during which time I have had in my employment more than a thousand free individuals, for longer or shorter periods. I do not remember having ever had with one of them a second's misunderstanding, on settlement, as to the accuracy of their time and charges. In two or three instances negligent bargains have been made with respect to the rate of wages.

My mode, however, is equally adapted for a slave or a free state. In the former, another mode might be devised of perhaps greater facility.

The *desiderata* of farming accounts, or rather the first thing necessary to be done, are the accurate registering of every event connected with the operations carried on, an exact account of expenses, incomes, &c.; that *data* may be at hand, *and easily referred to*, whereby at any moment the agriculturist may know where he is, and how he stands. This reckoning with himself should at all events be made at the end of every year. My experience has taught me that the progressive or daily formation of weekly tables, is the easiest mode of preserving these data, and presents the greatest facility of reference, whenever accounts are transferred from these tables to the leger.

I have therefore three books, in which are kept all my accounts and memoranda, with not only operatives, but all other persons with whom I have any dealings. In these are also preserved the cost of every undertaking on my farm--the expenses of my family--my income--in short every thing of a pecuniary nature related to me, and many things beside. These are--

1st. A small book about as wide and long as one of the columns of your paper, which is divided longitudinally into two columns, in the first of which is set down at night the name of every labourer who has wrought for that day, *by the day or month*, (it not being necessary to notice job-work herein,) and in the second column, opposite to their names, a note is made of what employment they have been engaged in—thus:

1829. *Monday, Jan.* 5.	
W. S. Stone, . . .	At saw-mill, (carpenters)
J. Moke, ...	
W. Wallace, 25 cents.	Labourers at saw-mill.
J. Wallace, ...	
J. Rogers, ...	
L. Mason, . . $1	
J. Chambers, . . .	Making post & rail fence by Horse Shoe pond.
R. Clemons, . . .	

Tuesday Jan. 6.	
W. S. Stone, 30 lbs beef.	At saw-mill.
W. Wallace, ½ a day.	Do.
J. Rogers, ...	
L. Mason, ...	
T. Stewart, . . .	Post and rail fence.
R. Clemons, . . .	
J. Chambers,	

I call this book the *roster*, (which word, however, will not be found in Johnson, and I know not why I have adopted it.) If you dislike the word you may call it roll, day, or time-book; choose one name and stick to that. It is proper that the week should begin with Monday at the top of one of the pages, and end with Saturday at the botton. Thus every page exhibits a week's work, and fifty-two pages make out the year. Should any payment *on account* be made to any of the hands during the week, it is placed by their names when entered, as in the cases of W. Wallace, L. Mason, and W. S. Stone. With most of my labourers I settle, or pay them off every Saturday night, and then draw a perpendicular line at right angles with their names. This line is evidence of the full payment of their wages, or of a transfer of their credits to the leger. Whenever any *hiatus* is left by passing over a name, it is closed on payment or a transfer of credit; at which time the payments marked opposite the name are deducted. You will observe that no minute is here made of the amount of wages to be paid to each individual, (or of the price of the 30 lbs. of beef,) that being always remembered on settlement, or a transfer to the leger on Saturday evening. Settlements are necessarily at short intervals, where labourers want their wages as fast as they are earned. But if these things are necessary to be mentioned, they can be noted in the week-book, of which I will presently give a description. A glance over this page at any time will show whether the perpendicular line drawn at right angles over the names, is unbroken or not, and the necessity of closing the *hiatus* by payment or a transfer of credit. This book will exhibit at the end of the year, an account of all the day-labour done during that period, in weekly sections, and with me answers instead of any other minute of labour, where labourers are coming and going irregularly, (having sometimes nine or ten a day, and then again only one or two,) and is especially convenient where payments of wages are made in full at the end of every week. It is understood by those whom I employ, that I never give a credit for less than half a day, and that with reluctance; but occasionally it is unavoidable. The second column will enable you, at the end of a year, or at the completion of any undertaking, to ascertain how much any piece of work has cost you. You may transfer this, if you choose, to the leger, where you can have an account of it opened, say as follows:

"Da—Field A—To so much work; to board of so many hands, so many days; to use and wear and tear of team, &c. Contra Cr. By such a crop."

One of these *rosters* or *time-books* to be made new and began, say on the 1st of January of every year. Its simplicity and ease of comprehension to an uneducated labourer, is not its least recommendation, where settements are made at short intervals.

2d. The *leger* is larger than the *time-book*, more than twice as wide and much thicker, as one will do perhaps for several years, according to the number of accounts opened in it. In this should be transferred on every Saturday evening, all the credits of those who are not paid off at that time, and charges made of payments during the week. This is done in as succinct and consolidated a manner as is consistent with perspicuity. In this record are kept all other accounts, by opposite *debit* and *credit* pages; it being generally the case that the transactions of a farmer (when his hired hands are put out of the question,) are not so multifarious as those of a merchant or manufacturer, and that therefore he has little occasion for the separate *blotter* used by those persons, being enabled to enter on his leger many particulars as they occur. Unless on unavoidable occasions, I rarely look into my leger until Saturday evening, and sometimes not for a fortnight, the books in daily use being the time-book (or *roster*,)—and

3d. Memorandum or week-book, of which here follows a specimen of one page and one week:

1829	Farm Income.			Other Incomes.			Expenditures.			Increase of stock.	Decrease of stock.	Miscellaneous.	Agenda.	New Ideas
		$	c.		$	c.		$	c.					
Sunday. January 4.												In town at Mr. W's church; rode home in the afternoon.		
Monday 5.	2 cords wood, in part for one horse,	3 20					Pd. W. R. Shoemaker's bill in full,	4	62	2 lambs.	Sold grey horse Paddy to A. B. $60. 20 in hand; $10 in 30 days	Hired J. Chambers for 2 mths at $8.	Have old logs in stack field fired while the weather is dry.	Enclose Moddy Creek common and plant out locust trees therein.
Tuesday 6.	1 hide, 30 lbs. of beef to W. S. S.	2	50 90	Rec'd of E. L.	34	63					Killed white face cow; value $12.		Or make this column *meteorological*, and let the Agenda be made on a separate slip of paper, and kept loose on the page, to be looked over during the week, and renewed at its expiration.	
Wednesday 7.							Pd. H. D. blacksmith's bill,	7		Large white sow 8 pigs.		Col. T. staid here last night on his way to Illinois.		Plant *Bignonia Radicans* along stone fence, to act as a binder.
Thursday 8.										4 lambs.		Agreed to give H. H. $5 for resetting N. line of orchard fence.		Circular Piggery near the dairy—consult Mr. M.
Friday 9.	sold 1 ton hay to J. C.	6					H. R.'s bill for groceries	11	20			Thos. Turton; name of carpenter near X roads.		
Saturday 10.	1 hide,	1	87				Am't pd. to hired hands this week	10	50		Old red cow died.			
Total,		34	27		34	63		33	32					

It may be observed of this specimen that the columns may be arranged differently, extended, compressed or multiplied by different individuals, as their judgments or business may dictate. The main object is to keep a regular diary of every thing *going on;* and the tabular form, for convenient reference and ease of making the entries is, in my opinion, the best. The *ruling* of 52 tables like the above, is the chief trouble about it. For several years I kept a regular journal, closely written; but it became so voluminous, that in endeavouring to refer to any particular fact, I found it useless, or at least extremely tedious. Nothing can be more easy for the farmer than the present mode. He keeps his *time-book*, *leger* and *week-book*, in a convenient drawer or shelf, *by themselves*. He comes in weary at night, but the additional toil is so trifling of writing down the names of his labourers in the *time-book*, and making the necessary notes in the already ruled table of his *week-book*, that he is never tempted to procrastinate. Three minutes writing secures the evanescent doings of the past day. It will be observed of the *week-book*, as of the *time-book*, that one page occupies the space of one week; an important auxiliary in the business of reference. "All of which is respectfully submitted,"

By your very obedient servant,

J. C. S.

AGRICULTURAL INQUIRIES.

Gordon's Dale, Fauquier county, Va.
Mr. Skinner, *Feb.* 6, 1829.

Sir: In No. 46, vol. 10th, of your valuable paper, a correspondent who signs himself "An Eastern Shore Farmer," informs you that he has for thirty years past kept an accurate account of all his agricultural operations, &c., and among others, of the "number of loads of manure carted out each year, what kind, and where deposited;" and adds, that he "frequently manures from one hundred to a hundred and fifty acres annually." He will oblige one much interested in all subjects pertaining to agriculture, by answering the following inquiries:

Is all this manure used upon one farm?

What means he adopts to make it?

At what seasons he carts it out?

What force of hands and carts he employs?

In what state he most usually spreads it upon the land?

Upon what crops and kinds of soil?

In what state he prefers using it?

The result of his experience in regard to its application, in the different states, to the different kinds of soils and crops?

Whether he uses it much as a top dressing, in what state, and on what kind of soil he prefers so using it?

Any other information pertaining to the subject, will be gratefully received. Its importance, and the various opinions entertained upon it by agriculturists, must be my apology for troubling your correspondent.

A Subscriber.

IMPORTANT TO COTTON GROWERS.

It has been known that cotton seed yielded a considerable portion of oil of excellent quality.—The difficulty of expressing it, in consequence of the quantity and absorbing quality of the integuments of the kernel has been so great, that heretofore no great quantity of the oil has been made.—We are happy to announce that a highly respectable gentleman of Petersburg has invented a machine, by which the seed is completely hulled, and prepared for the easy expression of its oil. The importance of this invention to the southern country, may be appreciated from the fact, that the inventor is erecting a cotton gin, and will shortly be prepared to gin cotton for the seed only. We believe the present price of ginning is every tenth pound; so that, in fact, the cotton grower will have an addition made to his crop of one-tenth of the whole, by the introduction of this valuable machine. When it is borne in mind that the seed at present is of little or no value, it is apparent that the invention adds greatly to the resources of the southern states, and must, we should think, exert a friendly influence on their prosperity. We hope the inventor may be rewarded in a substantial manner, and share a fate different from that of the unfortunate Whitney. [*Political Arena.*

(From the Poughkeepsie Journal.)

HORSES.

Those engaged in scientific pursuits in relation to medical subjects, have long observed the effect of certain positions of the human frame, and have seen that the pursuit of particular objects, has a great influence in the formation and structure of the body by producing peculiar shape and conformation of particular parts. In some instances, unusual muscular power in the upper extremities; in others, the chest becomes contracted and narrowed in its capacity, thereby curbing the action of the lungs, depriving the system of its necessary supply of vital air, or predisposing to pulmonic disease; at others, the chest becomes enlarged in its capacity, giving an unnatural prominent appearance to the thorax At other times, peculiar employments bring about an irregularity in shape and deformity in the inferior extremities, calculated to diminish their ordinary beauty and usefulness, or to add to their elegance and muscular power. All those effects, in the progress of human life, have an influence on the appearance, the health and well being of the subject; therefore become proper subjects of medical investigation. This principle, so well known and understood in physiological enquiry, has not been particularly noticed so as to be applied to the formation and structure of brute animals, in order to improve their beauty and value, until recently. Mr. A. Carman, of Hyde-Park, Dutchess county, has turned his attention to this subject, and brought it to such a state of perfection as to obtain a patent for the improvement of the shape, carriage, action and muscular power of Horses, to which the attention of the public is called.

A work, somewhat elucidating the preceding remarks has lately been published by M. Broussias, of the Military Gymnasium of France, from the review of which, in a London Medical Journal, some appropriate remarks occur, and from which some extracts follow. "We agree with the author, that such exercises (and position) if properly regulated, have a powerful influence on the system; on this account it deserves the consideration of statesmen, divines, philosophers and physicians; it interests the latter in a double manner, as an instrument of preserving health and effecting cure. This exercise bids fair to exert a considerable influence on the rising generation." Again, "this agent is capable of being directed locally to this or that particular part; as for example, to the dilation of the chest, and to the invigoration of any of the limbs or the muscles of a particular part." "By a skilful use of this measure, we may enable one organ or system to predominate over another." It is further observed, that watermen, who are in the constant habit of rowing, have large chests, strong muscular arms, short bull necks and rounded backs; but when we view them a little lower, flattened glutens, thighs spare, legs seldom adorned with a calf, are presented. The chest almost Herculean, the legs miserable; this structure gives strength for the handling the oar, but not for the arm, &c. It was the opinion of Lord Monboddo, that, by long habit and position, the shape and deformity or beauty of many of the inferior animals had undergone material change; and even men, by occupation, by habit, have varied their appearance in many respects and relative proportion of body.

The proposition of Mr. Carman, to improve the beauty, action and power of Horses by position and exercise while growing, is entirely reasonable and consistent with the foregoing observations, corresponding with intelligence derived from natural history and the principles of sound philosophy. We are induced to believe that by applying his principle and feed box with perseverance, such a shape and conformation may be given to the forming muscular and ligamentous fibre of young animals, as will greatly add to the beauty, elegance, and useful performance of that valuable domestic animal—the Horse.

Agricola.

HORTICULTURE.

THE SEED OF THE TREFOIL TREE,
Or Ptelia Trifoliata.

Horticultural and Botanical Garden,
Mr. Skinner, *Brooklyn, L. I., Feb. 2,* 1829.

Sir: This tree is a native of Virginia, very little known in this country, except in nurseries; its form is far from being disagreeable, and the leaves make a handsome contrast in landscape gardens by their dark colour, and where several of those trees are put together. But what I think gives it a great importance is, that it could be made an object of a branch of national industry and culture: for, after having given its greenish blossoms of no great appearance, it bears numerous clusters of seeds resembling hops, and which may be employed advantageously instead of them in the making of beer. In Alsace, in the eastern part of France, in a year when the hops were very dear, it was used very successfully, and the beer so made was found very good. This tree grows very quick, and succeeds in bad soils; and in France it is estimated that an *hectare*, making nearly three acres, could produce 2400 francs, which is about 480 dollars.

For this cultivation it would be better to keep the trees bushy, and planted six feet apart each way. It is raised from seeds and flowers, and may be planted to remain the third year. I have taken notice that the aromatic taste of the seeds is much stronger here than in France; so that the quantity of the weight would be less than that ordinarily used of the hops.

I remain, with great esteem,
Yours respectfully,
ANDRE PARMENTIER.

(From Adlum's Memoirs on the Cultivation of the Vine.)

TO PROPAGATE GRAPE VINES FROM SEEDS.

When vines are to be raised from seeds, they should be sowed the latter end of February, or beginning of March, or they may be sowed as late as the middle of April; but the earlier the better, in rows, in borders, or in beds. Sow the seed in rich, light earth, (well spaded and raked) about an inch deep, and if the weather is dry, water them occasionally, and when the seeds begin to vegetate, the plants should be watered in the evenings in dry weather. When the plants are six inches high, they should be carefully tied to rods, leaving only one stem the first year; the rods should be nearly as high as the vines are likely to grow the first season.—When the leaves begin to drop, pull off all as they turn yellow, so that the wood may ripen well.

About the latter end of March, the next season, they may be planted out where they are intended to remain, and they should be cut off to the third eye if very strong, but only to the second, if weak, rubbing off the lower bud with the finger and thumb. And afterwards, they are to be managed as the cuttings, that are planted in the vineyard. But it is to be observed, that the vines propagated from seed, do not all bear fruit, probably not more than the half of them; therefore, if they are strong growing vines, I would advise to engraft all the barren ones.

RURAL ECONOMY.

GOOD BACON.

The following is the mode of curing bacon in Virginia, laid down by a gentleman of the Isle of Wight county, who has had much experience in the process. [*Lancaster Jour.*

"To have good bacon, the pork must be fat. It may possibly be too fat, though that is very rarely the case in Virginia. Hogs about eighteen months old, which are raised poor, and afterwards well fatted in a short time on corn, are, I think, decidedly to be preferred. Before the pork be salted up it should be thoroughly cold, a circumstance indispensable to its lasting preservation; and it is at least the safest course in our uncertain climate, to lose no time afterwards. To give bacon its most exquisite flavour, both molasses or sugar, and saltpetre should be used. I usually put a table spoonful or two of molasses on the flesh side of the ham, a little before it is salted, and after the molasses is rubbed over it, a heaping spoonful or two of finely pulverized saltpetre, the ham supposed to weigh, when cured, from 12 to 15 pounds. I put nearly the same quantity on the middlings and shoulders, and proportionably on the smaller pieces, believing that it essentially contributes not only towards improving the flavour and appearance, but also to the preservation of bacon, and as a preventive against the worm, bug and skipper. In order to insure perfectly sound bacon, the pork must be salted at least twice. The second salting should take place about the third day after the first, at which time I add about a third of the quantity of saltpetre applied in the first instance. If, however, the pork should be frozen when salted in the first instance, it should be re-salted as soon as practicable after it thaws; without which there is great danger of injury. I use the Liverpool sack salt, and prefer it on account of its fineness. A bushel to the thousand weight of pork has been supposed a sufficient quantity. I think it too little, and would not by any means advise that there should be any stint of salt. Five pounds of saltpetre to the above mentioned quantity of pork is, perhaps, quite enough. Care should be taken to let the brine drain off from the pork, whilst in salt, as its contact with it tends to injure its flavour. If salted in casks, there should be a hole in the bottom, after the second salting, that the brine may escape. There are different opinions as to the length of time the pork should remain in salt. I would recommend four weeks.—If saltpetre in sufficient quantities be used, fat pork can scarcely be made too salt. I have known prime excellent bacon to have remained in salt more than three months. The last operation in curing of bacon is the smoking of it. This may be sufficiently well done, perhaps, with any kind of wood; but solid green wood, as hickory or oak, is the best. Contrary to old opinions, the operation is best carried on in the closest smoke house; considerable degree of heat, too, is not injurious, but promotes and facilitates, I believe, the operation. The old idea of the fire tainting meat is erroneous. The effect, so called, is occasioned by the pork not being thoroughly cured; bacon should be smoked until it is of a dark reddish colour, and it is best done in clear dry weather. In hanging it up, it is most advantageous to put the joints highest; for, as they are most assailable by the skipper fly, they are least likely thereby to have eggs deposited on them. There is an opinion which has long universally prevailed, and which I think the experience of the last winter has belied. It is, that if pork be once thoroughly cold before salting, it may with proper care be saved. This in ordinary winters is true. But in such a winter as last, when the thermometer ran, in 24 hours, from between 30 and 40 to between 60 and 70, and remained so for four or five days, I do not think that fat and large pork can be saved by any reasonable attention to it. [*Western Tiller.*

BEES.

Mr. E. Williams, of Ashfield, so managed a hive of bees, as to prevent their swarming, and having kept them six years, took them up, and after making half a barrel of metheglin, had 293 pounds of strained honey, and 91 pounds of excellent honey in the comb, making 384 pounds. He also made 47 pounds of bees-wax. Mr. Williams, some time since, related to me some particulars respecting this extraordinary production, the substance of which I will now state. He bought a swarm of bees of middling size, and having no convenient place near his house, where he could set them, he built a shelter several rods distant, so situated that they might swarm and go off without being discovered. To prevent their swarming, he added other hives to the original one, in the following manner: first making a large hive with a hole through the top, three or four inches square, on which he placed his hive of bees, having a hole two inches square through the right and left sides of the new or lower hive, at the bottom; then made other large hives, with holes through two sides similar to the first, with *cleets* nailed around each of these holes, so as to come in exact contact with each other when placed on the stand, and in this way connected them together, giving the bees a chance to pass and repass through the whole range of hives, having them to go in and out at the front of each one, as they found most convenient. By this kind of management, his bees spread and increased, and soon became a numerous and powerful community: and eventually yielded the extraordinary and valuable production which has already been stated.

In regard to wintering bees I will venture a few remarks. If bees are kept in a dark cellar through the winter, they will spend but very little of their stock of provision, as they immediately become dormant and so remain until they are removed to a different situation. In this way I have frequently preserved them through the winter, when they would probably have perished within a month, after they were unable to obtain their living abroad, had they been left to take care of themselves.

I once had a swarm of bees come out late in the summer, and when the season of their labours was over, the crown of a common hat would probably have contained the bees and all they had collected. I put this swarm of bees into a cellar, where they lived through the winter, and the next season they filled their hive and swarmed twice. This may appear incredible to some, but those who doubt the correctness of what I have stated, if they try the experiment, I doubt not will find that I have not overleaped the bounds of truth. I could relate other similar instances, but I deem it unnecessary, as a word to the wise is sufficient. A Farmer.

Worcester, March 30, 1823.

TAKE CARE OF YOUR ASHES!

The carelessness of many persons in disposing of ashes taken hot from the hearth, and containing, as they generally do, a quantity of embers and live coals, renders this caution highly necessary.

But a few nights since, had it not been for the timely discovery of the flames by the WATCH, a dwelling house, and perhaps a whole neighbourhood, would have been consumed, in consequence of putting hot ashes into a WOODEN BOX. Some are in the habit of putting their ashes in old flour barrels and the like—a short time since, we saw a vessel of this kind deposited in the corner of a neighbour's wood house! into which ashes taken hot from the fire were inconsiderately thrown. And we are sorry to learn that some of our immediate neighbours are in the habit of using a HALF BUSHEL for this purpose, and when filled, of setting it among the shavings and other combustibles of a lumber room. These things should be looked to.

INTERNAL IMPROVEMENT.

(From the Albany Argus.)

THE NEW YORK CANALS.

From the annual report of the Canal Commissioners, submitted to the Assembly on the 26th ult., we gather the following facts:

During the last year, the works on the Oswego canal, with a trifling exception, have been completed, and a good boat navigation extended from the Erie canal to the harbour of Oswego. Owing to the extraordinary floods, and the prevalence of a fatal malady on the line of the canal, the completion of this work was delayed beyond the expectation of the commissioners, and until the month of December.

The Oswego canal is 38 miles in length; one half the distance connected with the Oswego river by locks and dams, and the other half a slack water navigation on the river. Its structure consists of 22 bridges, 7 culverts, 1 aqueduct, 2 waste-weirs, 8 dams across the river, 13 locks of stone, and 1 of stone and timber, with an aggregate lift of 123 feet. The sum of $505,115 37 has been already paid for the construction of this canal, which will be increased to $525,115 87.

The Cayuga and Seneca canal was completed on the 15th November last, and the water admitted into every part of the line from the foot of the Seneca lake to the Erie canal at Montezuma. The little labour required to open the navigation throughout the whole line, it is believed, will be completed as early as the first of May. This canal is 20 miles and 21 chains in length, of which 10 miles is an independent canal, and the remainder a slack water navigation. It has 7 locks, being 73¼ feet lockage, 19 bridges, 5 safety gates, 5 dams, 6 culverts, 17 miles of fence, 3 lock houses, and 1 collector's office. The amount appropriated for this work was $195,000; but the entire expenditure will be about $211,000.

The lateral canal from the Cayuga and Seneca Canal to the village of East Cayuga, which is one mile and 68 chains in length, was put under contract early in May, and will be completed by the first day of July next. It will require a further appropriation of $8000.

The navigation of the Erie and Champlain canals commenced on the 1st of April, and continued until the 19th of December, a longer time than at any former period. At no season, however, have both canals suffered so much from breaches, occasioned by violent rains. These were speedily repaired, and other improvements made. The Black Rock dam and embankment on Squaw island have been raised and strengthened; the dam at the mouth of the Tonewanta creek rebuilt; the banks along the deep excavation on the Mountain Ridge repaired; a guard lock has been constructed at the head of the feeder from the Gennessee river, and a lock house erected; the lock at Jordan has been rebuilt, larger and more substantial; several of the wooden trunks of aqueducts which had become decayed, are rebuilding, of such width as to allow boats to pass each other upon them, and will be completed before the commencement of navigation; the dam across the Mohawk at the head of the Minden feeder, has been partially rebuilt; nearly all the locks on the Erie canal have been furnished with additional culverts and gates; scales for the weighing of boats have been erected at Syracuse and West Troy, and are preferred to the hydrostatic lock; the locks on the Glen's Falls feeder are completed, and it is believed the feeder will be navigable early in the season; many of the bridges have been rebuilt, and others are rebuilding, in all instances of such increased height, &c. as to leave the navigation unobstructed; and the banks to a considerable extent have been raised, and secured with a facing of timber or stone.

The entire expenditures on the canals for the last year, for constructing, maintaining and repairing them, including the interest on the canal debt, ($424,010 15,) amount to $1,002,287 72. The revenue which accrued from the canals and from the items of the canal fund, amounted to $1,233 435 03; shewing an excess of receipts of $231,147 31.

The receipts of toll, were $838,412 04; which is $26,646 44 short of the receipt of last year. "This diminution of toll (say the commissioners,) has been occasioned by the failure of the last year's crop. Wheat is the great staple of the western part of the state, and affords an amount of toll nearly equal to all the other articles which descend the Erie canal. It appears by a statement which has been furnished by Mr. Williams, the collector at Utica, (and which is appended to this report,) of the articles which passed that place in the year 1827 and 1828, that there has been a falling off in the last year of wheat, to an amount which is equal to 1,100,000 bushels of the former. This deficit has caused a reduction in the toll, which is estimated at $75,000. Had the produce of the crop been in the usual proportion to the quantity of seed sown, there would have been more wheat and flour sent to market than in any former year, and the toll would have probably received an accession of more than one hundred thousand dollars."

The tolls for 1829 are estimated at $870,000, and the whole amount of receipts at $1,260,000. The expenditures for the same year (which will be short of those of any previous year,) are estimated at $757,442 75: showing a balance in favour of the canal fund for the current year, of $502,557 25.

The whole amount derived from the several items of the *Erie and Champlain Canal Fund*, from 1817 to January 1829, was $6,487,742 10; to wit:

Salt duties,	$ 878,185 45
Vendue do.	2,042,064 46
Steam boat tax,	73,509 99
Tolls,	3,473,123 83
Rents of surplus water,	2,147 00
Western Lock Navigation Co.	8,738 00
Sales of lands, 1st payment, $9,490 00 Int. and prin. 483 37	9,973 37
	$6,487,742 10

From the Oswego Canal:

Sales of lands, 1st payment,	$25,690 80
Interest and principal,	20,092 80
Tolls,	2,057 82
	$47,841 42

RAIL ROADS.

The Salem Observer mentions that the joint Committee of the legislature of Massachusetts, who had under consideration the subject of Rail-ways to Providence, and the Hudson River, have reported a series of resolutions in favour of the proposed improvements, and recommending a provision for raising the funds necessary for constructing the Railways, by loans on the credit of the State, bearing an interest not exceeding four and a half per cent per annum. The Committee state, in their Report, that there is reason to believe, that a Company might be formed of intelligent and responsible individuals, who would take a large portion of the stock, provided the Legislature, in addition to the grant of the right to take reasonable tolls, would authorize a subscription of a third or two fifths of the stock on the part of the state, the stock so taken to remain permanently the property of the Commonwealth.

LADIES' DEPARTMENT.

THE ROSE.

BY MRS. SIGOURNEY.

I saw a rose in perfect beauty; it rested gracefully upon its stalk, and its perfume filled the air. Many stooped to gaze upon it, many bowed to taste it fragrance, and its owner hung over it with delight. I passed it again, and behold it was gone—its root had withered: the enclosure which surrounded it was broken down. The spoiler had been there: he saw that many admired it: he knew it was dear to him who planted it, and beside it he had no other plant to love. Yet he snatched it secretly from the hand that cherished it; he wore it in his bosom till it hung its head and faded, and, when he saw that its glory was departed, he flung it rudely away. But it left a thorn in his bosom, and vainly did he seek to extract it; for now it pierces the spoiler, even in his hour of mirth. And when I saw that man who had loved the beauty of the rose, gathered again its scattered leaves, or bound up its stalk which the hands of violence had broken, I looked earnestly at the spot where it grew, and my soul received instruction. And I said, let her who is full of beauty and admiration, sitting like the queen of flowers in majesty among the daughters of women, let her remember that she standeth upon slippery places, "and be not high minded, but fear."

Oh! Thou who Dry'st the Mourner's Tear.

"He healeth the broken in heart, and bindeth up their wounds."—Ps. 147. 3.

Oh! Thou, who dry'st the mourner's tear,
  How dark this world would be,
If, when deceived and wounded here,
  We could not fly to thee.
The friends who in our sunshine live,
  When winter comes are flown;
And he, who has but tears to give,
  Must weep those tears alone.
But thou wilt heal that broken heart,
  Which, like the plants that throw
Their fragrance from the wounded part,
  Breathes sweetness out of wo.

When joy no longer soothes or cheers,
  And e'en the hope that threw
A moment's sparkle o'er our tears,
  Is dimm'd and vanish'd too!
Oh! who would bear life's stormy doom,
  Did not thy wing of love
Come brightly wafting through the gloom
  Our peace-branch from above?
Then, sorrow touched by thee, grows bright,
  With more than rapture's ray;
As darkness shows us worlds of light,
  We never saw by day!

SPORTING OLIO.

(From Johnson's Shooter's Companion.)

THE PERCUSSION GUN.

Some years ago, Forsyth procured a patent for the application of what is called *percussion powder* to fire arms. Sportsmen regarded with astonishment the pompous advertisements, which announced the discharge of the fowling piece, "*without flint, flash, or smoke.*"—The percussion powder was used merely as the priming. The invention, however, did not at first meet with great encouragement, for two reasons, namely, the price appeared exorbitant; and an idea of danger naturally enough attached itself to the use of the percussion powder, which, at first sight, appears so calculated to produce accidental mischief.

Forsyth's invention for containing the priming, consists of what he calls a magazine, which is attached to the outside of the lock, and contains a chamber large enough to hold powder for a number of primings. By a slight movement of the magazine, a sufficient quantity for one priming is thrown into a cavity, where it receives the stroke of the hammer, becomes ignited, and thus discharges the gun. Forsyth has the merit of being the first to apply percussion priming to fire arms; but, it was evident, that his magazine was susceptible of great improvement. The priming powder, too, concerning which he assumed an air of mysterious secrecy, deposited so great a quantity of feculent matter, and was so excessively corrosive, that much more frequent cleaning than usual became indispensable: under these circumstances, therefore, I was content to pursue the old method of priming with gunpowder.

Sometime ago, a percussion gun was put into my hands by Mr. R. Gill, of Yorkshire, of which I made a trial, and found that it shot remarkably well; I found it, in fact, much superior to the ordinary fowling piece, and this superiority arose not entirely perhaps from the use of percussion priming, but from the excellence of the bore and firmness of the workmanship; yet, the indescribable rapidity of the discharge, the increase of force, with little more than half the common charge of gunpowder, were advantages too tempting to be abandoned; and I, therefore, resolved to adopt the percussion gun.

Manton contrived a method of firing with percussion priming very different from Forsyth's, and perhaps on the whole inferior, as the primings were made into small cakes, one of which being fixed in an iron plug, the latter was placed in the mouth of the cock, as it were, and by striking on the touchhole (made in the end of the breech, which is in the form of an inclined plane,) discharged the gun. Manton accommodated his customers with fifty of these iron plugs, which were understood to be sufficient for the day's amusement; and being primed before setting out, were carried in the pocket, and used as occasion required. Carrying these plugs was obviously an inconvenience; in fact, the contrivance altogether bore no marks of extraordinary genius. Forsyth brought an action against Mr. Manton, in consequence, for an infringement of his patent, and succeeded in putting a stop to Mr. Manton's sale of these guns.

As the application of percussion powder to the fowling-piece excited so much surprise, and appeared so advantageous, it was not long before a number of inventions made their appearance, each professing to be the best mode of adopting it. To say nothing of Forsyth's magazine, Manton's pegs, or Webster's wire, twenty other plans at least might be enumerated—many of which had a very neat and even a beautiful appearance; but which were generally found defective in the field either from a hazy atmosphere or other incidents to which the shooting sportsman is peculiarly liable. At length what is called the *copper cap plan* made its appearance, which I have used throughout three seasons, under the disadvantages of wet weather and every other untoward circumstance attending this fascinating recreation: I have made a great variety of experiments upon the subject, and have, in fact, tried it in all possible forms; and feel not the least hesitation in asserting, that the copper cap plan is superior in every point of view to any other which has made its appearance.

Copper cap guns will unquestionably become general; and will no doubt be manufactured by all the pretenders in the trade: I would, therefore, advise those who may feel an inclination to procure fowling pieces on the above plan, to be careful whom they apply to, as the very best system may be brought into disrepute by ignorance and incapacity; and perhaps, of all other businesses, none is more replete with those baneful qualities than that of gun making.

The *copper cap plan* is very simple; is less liable to be out of repair than any other; and is, at the same time, much more easily rectified, should any casual accident occur. Indeed, its superiority is obvious at first sight, in every point of view.

I had nearly forgot to mention, that, independent of the copper caps used for priming, my gun has also *double headed priming pins*, as well as *patch pins*, which may be substituted fur them, at the will or the whim of the sportsman.

The advantages of percussion priming are, the instantaneous discharge, which is indescribably more rapid than with the common priming, and, of course reduces the science of shooting (particularly at flying or moveable objects) to a degree of precision unattainable by any other mode hitherto adopted. Very little more than half the common charge of gunpowder is sufficient to load the percussion gun; for the strong flame from the priming is driven with uncommon force through the touch-hole, and not only ignites the gunpowder much more completely, but appears to assist its force, as the percussion gun drives the shot with a degree of strength scarcely to be believed by those who have not witnessed it. In fact, the strength of the percussion priming is driven into the barrel of the fowling-piece, as there is no other way for much of the expansive fluid to escape; whereas, in the common lock, the hammer, being driven up by the stroke of the cock, suffers the elastic force, or strength of the priming, to escape; nor is this all—no doubt can exist, that part of the force of the charge is expelled through the touch-hole, and this rule will, in all probability, be found to obtain in a greater degree when the wind blows strong. It follows, therefore, that the percussion, compared with the common method, will produce a more instantaneous discharge, superior force, and greater precision, with a much less charge of gunpowder.

Waterproof.—Percussion guns are much more susceptible of being rendered waterproof than guns upon the old method. Nevertheless, waterproof, as far as relates to the fowling piece is not of that importance as a superficial observer might imagine. Shooting is always unpleasant in rainy weather; in heavy and incessant rain it is out of the question. In a slight drizzling rain, or for a shower, the sportsman may keep the field with a percussion gun, and will experience no *hanging fire;* but the scent will be indifferent, nor will game lie well unless in hedges and strong covers.

MISCELLANEOUS.

POPULATION OF PENNSYLVANIA.

The Total amount of the returns for 1821, gives 208,439 Taxables, 485 Deaf and Dumb, and 224 slaves.

In 1828, the Total amount of Taxables is 243,874, of Deaf and Dumb 464 and of Slaves 76: giving an *increase* of 35,435 Taxables and a *decrease* in the Deaf and Dumb of 21, and in the number of Slaves of 148, which is, within a fraction, twice as many slaves as there are in the whole commonwealth. There are three counties, viz: Bradford, Lebanon, and Somerset, which have probably about 9,700 Taxables, from which we have no returns.

Adopting the usual rate of allowing five inhabitants for each taxable, the population of the State, under the census of 1821, was 1,042,195. That this is a safe average and very near the truth is proved by the census taken by the United States in 1820, which gave the number of inhabitants in the state at 1,049,458. Continuing the same estimation multiplying the Taxables by five, our population in 1828, was 1,219,370, being an increase of 177,185. The same regular, progressive increase will make the Population of Pennsylvania at the United States Census in 1830, one million, two hundred and seventy thousand nine hundred and thirty nine. To this however must be added a population of 51,000 for the three counties from which we have no returns. This will make our whole population at the United States Census in 1830 about one million, three hundred and twenty-one thousand nine hundred and thirty-nine.

The Census of Pennsylvania in 1790, gave 434,373 inhabitants; in 1800, 602,548; in 1810, 810,091; in 1820, 1,049,458; and in 1830 it will be 1,270,939.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 13, 1829.

☞ SILK.—We continue to receive evidence of the rapid progress making in our country in the cultivation of silk. We have now before us a hank of floss, or partially twisted single strand silk, made by Miss Maria Louisa Arnold, of Clark county, Indiana, who is only twelve years of age. The silk is of a very good quality, fully equal to the best of the imported article. We take pleasure in laying before the public instances of this kind, as they afford conclusive proof of the practicability of making silk a staple article of agricultural production of the United States. To the ladies of farmers' families, the production of silk affords an elegant and profitable employment, and we take upon ourselves to say, that every farmer's family which has a single mulberry tree on the farm, can, with little labour and no expense, make all the sewing silk necessary for family use, and, if they please, a few dollars' worth to sell; or, what is still better, enough to make themselves silk stockings. The great obstacle that seems to attend the culture of silk, is the supposed want of a market for it. We are enabled to assure our readers that there is no want of a market fur silk properly prepared. The *cocoons* should never be sold; for there is more profit in reeling the cocoons and making sewing silk or floss for coach lace and fringe makers, than in producing the cocoons. For cocoons there is at present no market that we know of; but if there was, the cultivator ought by no means to sell them, but reel them. We take this occasion to say, in answer to many inquiries on the subject, that silk worm eggs of the best Italian stock, and directions for the management of silk worms, reeling and preparing silk for market, can always be had of Mr. Gideon B. Smith, of this city. All that is necessary is to write to him by mail, enclosing five dollars, and he will return by the same conveyance, the eggs, &c. called for; or the Editor of the Farmer will take pleasure in attending to such orders fur those who may command his services.

☞ Mr. Smith informs the Editor that those who want silk worm eggs should apply quickly, as the warm weather will soon render their transmission by mail impracticable.

☞ A correspnndent requests information of the easiest and cheapest mode of drawing water from a well seventy feet and upwards in depth, by manual labour. Pumps, he remarks, will not do, in consequence of the great depth of the well, and the absence of workmen to repair them when out of order. This subject being of general interest, we shall be glad to receive descriptions of the best modes, for publication in the Farmer.

☞ On Wednesday of last week, 6450 persons and 1250 sleighs, passed a store in Troy, N. Y. between sunrise and sunset. Troy contains about 8000 inhabitants; and it may be proper to observe, that the farmers in the vicinity generally defer taking their produce to town "till sleighing." When, therefore, there is good sleighing, there will speedily be an abundance of every other good thing. At these times, the main streets of Albany and Troy have been so occupied with sleighs, that it has been found extremely difficult to pass along them. The sleigh bells, on these occasions, produce a most agreeable confusion of sweet sounds, contrasting finely with the eternal clatter of carts and wagons on our pavements.

☞ BALTIMORE MARKET.—A slight depression has taken place in the prices of Howard street flour since our last publication. The nominal wagon prices yesterday was $7.75; but few were willing to sell at that. From stores it was nominally $8.00 a $8.12½; little business doing.

OBITUARY.

In Salem, on the 29th inst., the Hon. TIMOTHY PICKERING, aged 84. He was born in Salem in 1746; was graduated at Harvard University in 1763; in 1774 he wrote the celebrated address to Governor Gage, on the subject of the Boston Port Bill. In 1775, in common with the other distinguished patriots of those days, he took up arms in defence of his country's rights. In the same year he was appointed a Judge of the Court of Common Pleas for Essex, and sole Judge of the Maritime Court, for the middle district, including Boston, Salem, and other ports of Essex, which offices he held till he was appointed in 1776 to the command of a regiment of 700 men from Essex, in the Continental army. In 1777, he was appointed by Washington Adjutant General of the army. In 1780 he was elected by Congress Quarter Master General during the rest of the war. From 1790 to 1794, Colonel Pickering was charged by General Washington with negotiations with the Indians. In 1791 he was appointed Postmaster General; in 1794, Secretary of War; and in 1795, Secretary of State, which office he held till 1800, when he was removed by the late President Adams. In 1803, he was appointed by the Legislature of Massachusetts a Senator in Congress, where he remained till 1811. In 1814 he was elected a Representative in Congress, and held his seat till 1817. From that period he has lived a private life, enjoying the society of his friends, and devoting a large portion of his attention to his favourite agricultural pursuits. All who came in contact with him, as a citizen and member of society, could not hesitate to admire his many sterling excellencies of character. Even when compelled to dissent from his opinions, it was impossible to refrain from respecting the purity of his motives.—His age, and his great experience in public service always commanded, as they merited, the respect of his opponents. To the following concluding remarks of an obituary of Col. Pickering, in the Salem Gazette, from which the foregoing facts are condensed, we readily yield our concurrence.

"Of his private virtues there is no difference of opinion. All men, of all parties, speak of them with rapture, and acknowledge them with admiration. This voluntary homage has been paid to his character amid all the vicissitudes of party. In all the private relations of life he was honest, faithful and humane. No man ever impeached his integrity with any colour of justice. *Love of truth*, and integrity that could not be shaken, were his characteristics. 'Where *truth* led the way, he did not fear to follow.' His manners were plain and simple, his morals pure and unblemished, and his belief and profession of the Christian religion were, through a long life, accompanied with practice and conduct in accordance with its divine precepts."

[*Boston Patriot.*

REVOLUTION IN BUENOS AYRES.

By the arrival of the brig Celerio, in fifty-two days from Buenos Ayres, information is received of a revolt which had taken place, by which the constituted authorities of the Argentine Republic were removed. On the conclusion of peace with Brazil, it was found necessary to order a certain portion of the Buenos Ayres army which had been for two years and a half engaged in service in the Banda Oriental, to the frontiers, for the purpose of defending them against the Indians. The army however, were dissatisfied with the government, and desirous of resting awhile under their laurels in Buenos Ayres, among their relations and friends. They demanded permission to return, which Gov. Dorrego had not the power to refuse, and from the 21st to the 26th of November, 2500 soldiers were received into the city, under the command of General Lavalle. An insurrectionary movement was expected; and on the night of the 30th, Governor D. sent an order to General L. to repair to the fort. He answered that he would come directly at the head of his lancers; but that it would be for the purpose of displacing the government. Gov. D. left the fort at 4 o'clock in the morning. Gen. L. marched at dawn to Plaza de la Victoria with a regiment of infantry, another of cazadores and a party of lancers, and took possession of the important posts. The ministers, Gnido and Balcara, were in the fort, the entrance of which was closed, and cannon mounted on the bastion and at the gateway. There was no confusion. The citizens came in great number to the Plaza; and it being thought that the Government had ceased to exist when Dorrego departed, General Lavalle issued a proclamation to that effect to the citizens and summoned them to meet at one o'clock in the church of St. Francisco. The ministers agreed to give up the fort to whoever should be appointed to command it. A large meeting was accordingly held, at which the proclamation, and a list of the officers' grievances were read, together with the submission of the late ministers. General Lavalle was declared Governor, ad interim, by acclamation. By a decree of the 6th Dec. he appointed Admiral Brown to the civil and military command of the Province, during his absence in the country. Admiral Brown accordingly took command of the fort. On the 11th Dec. an official detail was published of an action said to have been fought with the forces collected by Dorrego, near the lake of Lobos, and of their rout. The *Gaceta Mercantile* of the 13th announced the capture of Dorrego. The truth of both these statements was doubted, as was also a rumor that Dorrego had been assassinated. The account given to the Baltimore Republican by an intelligent gentleman who came passenger in the Celerio, states that if Dorrego had been captured, he had left behind him Gen. Arrosa, a man of great energy, who would control a strong force against Lavalle. On the 11th there was no further information from the hostile parties, and the city was quietly awaiting the result.

Mexico.

The Vera Cruz papers received in New York by the Virginia, come down to the 17th ult. Tranquility was restored in Mexico, and it does not appear that any excesses had been committed since the first three or four days of December, when it is said 800 persons were slain, and property to a large amount was pillaged. Among the number killed, was the Marquis de Valle, a distinguished descendant of Cortez, said to be the richest individual in Mexico. Many of the Spaniards were leaving the country, under an apprehension that an order would shortly pass for their expulsion. The Virginia has brought a considerable number, and several vessels were to sail for Bordeaux with passengers.

The General Congress assembled on the 1st of January, and was opened by a speech from President Victoria, in which he exhorts the members to employ all their means to heal the divisions that had endangered the constitution, and to endeavour to restore harmony and union among the states. He urged the Congress to lose no time in giving their sanction to the Treaty of Commerce and Amity with the United States of America, which he deemed of the greatest importance to both nations.

On the 6th, the new Congress proceeded to the election of a President and Vice President, which resulted in the choice of Vincente Guerrero and Anastatia Bustamente; Gen. Santa Anna was also chosen Secretary of War. An immense concourse of all classes, including many foreigners of distinction, occupied the galleries during the deliberations.

The Chamber of Representatives appear to have founded their declaration in favour of Guerrero as President, only and entirely on the constitutional ground that he was legally elected by the States.—They have set aside the returns forwarded by Vera Cruz.

The following letter was addressed by Commodore Porter to the Secretary of War:

"It gives me great pleasure to acknowledge the receipt of your official note of the 2d inst. and to thank you, and his excellency the President, for the gracious expressions of approbation which it contains. Permit me also to assure you, that there was but one period at which I had the least doubt of the proper course to pursue in the tremendous crisis which has just passed; but at the same time I pray you to take into consideration the extreme ignorance in which we all remained, as to the true state of affairs in Mexico. If the circular of the Secretary of State, issued on the 9th ultimo, to the governors and political chiefs, had been promulgated in this place, there would then have been no motive for vaccillating; but I was entirely ignorant of the existence of such a document until I obtained it a few days since from the hand of a friend, and caused it to be published as soon as received. From the same source I received the circular of the 8th, which I also published immediately. It now only remains for me to assure your Excellency of my firm support of the constitution and laws, my strict obedience to the orders of the supreme government, and my devotion to the principles of liberty. With these sentiments, which are common to all the individuals under my command, yourself and his Excellency the President may always rely upon the fidelity of the Navy.

"God and Liberty. DAVID PORTER.

"*Vera Cruz, Jan.* 7, 1829."

HORTICULTURAL.

The Subscriber wishes to notify the Public, that he has become the Agent for the sale of the celebrated Garden Seeds of Messrs. D. & C. Landreth, Philadelphia. The high reputation in which these seeds are held throughout the Union, is sufficient recommendation without further notice. But, he will observe, for the information of such as may be unacquainted with the fact, that (with a very trifling exception) all seeds sold by them are grown under their immediate superintendence,—each package bearing their warranty—and for the good quality of its contents, they hold themselves personally responsible. The Seeds will be sold by the subscriber at the growers' prices; and purchasers will be supplied, in every respect, on as good terms as though they dealt at the Philadelphia Establishment.

☞ Orders will also be received by him for Fruit Trees and Green House and Hardy Ornamental Plants.

The collection of each kind cultivated by the Messrs. Landreths, is not surpassed by any in the Union; and the prices at which they are sold much less than are demanded at some establishments.

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ALMANAC.

1829. FEBRUARY.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 14	6	41	5	16	10	32	3	41
Sunday,........ 15	6	43	5	17	10	34	4	24
Monday........ 16	6	41	5	19	10	38	5	3
Tuesday,...... 17	6	40	5	20	10	40	5	41
Wednesday,.. 18	6	39	5	21	10	42	rises.	
Thursday,..... 19	6	37	5	23	10	46	6	31
Friday,......... 20	6	36	5	24	10	48	7	27

Full Moon. 18th, 2 h. 8 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, Scrubs, ground leafs, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—yellow, 10.00 *a* 16.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—white wheat family, $9.50 *a* 10.00—super. Howard-st. (sales) 8.00 *a* 8.25; cit mills, 7.75 *a* 8.00; Susquehanna 8.00—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.60 *a* 1.70—best white wheat, 1.80 *a* 2.00—ordinary to good, 1.50 *a* 1.70—Corn, old. .48—new corn, .46 *a* .48—in ear, per bbl. 2.25—Rye, bush. .50 *a* .55—Oats bush. .26 *a* .28—Beans 1.25—Peas .55 *a* .60—Clover seed, 4.75 *a* 5.00—Timothy, 1.50 *a* 1.75—Orchard Grass 2.25 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—Barley, .55 *a* 60—Flaxseed, 1.00—Cotton, Virginia, .8½ *a* .10—Lou. .13—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9¼ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing—Apples, pr. bush. 1.25 *a* 1.50; Pheasants, per pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, .75 *a* 1.00; Geese, .50 *a* 62½; Butter, lb. .25 *a* 37½; Eggs, .15; Potatoes, Irish, bush. .50; Sweet, do. .50; Chickens, dozen, 3.00 *a* 3.50; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* 87½; Sausages, per lb. .8; Onions, bush. .50; Beets, bush. .75; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Pork, 5.00 *a* 5.50 cwt.; prime Beef, on hoof 5.50 *a* 6.00.

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AGRICULTURE.

DISEASES OF SHEEP.

[The following letter calls for information on an interesting subject, which we hope some of our intelligent correspondents will furnish. In the mean time we subjoin an article on the diseases of sheep from Loudon's Encyclopædia of Agriculture. The disease spoken of by our correspondent, seems to be the *Peripneumonia*, or inflamed lungs, described in the extract, though its being confined to the state of pregnancy, would appear to form an exception, if the state of the animal system and the season of the year do not conspire to make them more liable to it than other sheep.]

"Mr. Skinner will confer a favour by giving me any information upon the following disease of sheep. My ewes, about lambing time, are taken in the following manner: first refusing food, a sad look, after awhile they begin turning round, and at length are convulsed and fall, with a grinding of their jaws and foaming at the mouth; they go on for several days and die. I lost one yesterday, and examined it after death. The frontal sinus had four worms in it; but this I am told is common in most sheep; the stomach appeared natural, but the lungs looked very red and turgid with blood. I am satisfied that the disease is connected with the pregnant state, as sometimes they bring forth before they die; and in one case, a year or two ago, an ewe recovered after having had a lamb though she had been on her broad side for several days.—These sheep generally die very fat, as their keep upon clover is very good; indeed my sheep are very fine, as you may judge when I tell you that I have sold my wethers for two years, at my house, 65 miles above Richmond, for $5 per head. That this disease that my ewes are now labouring under, is connected with pregnancy, I have no doubt; as two years ago I lost five ewes that were on a rye field, and had thirty wedders upon a similar field, that had not the slightest indisposition of any kind. If Mr. Skinner knows of any auther upon the diseases of sheep, who has great credit, pray give me the name and where the book may be procured."

(From Loudon's Encyclopædia of Agriculture.)

The Diseases of Sheep.

The diseases of sheep are numerous; for these animals are now so highly cultivated that they may be regarded in some respects as artificial machines: and thus, as a natural consequence, they are subjected to a variety of artificial defects or maladies.

The rot *is a popular term* among shepherds, and includes within its range diseases widely different. We shall not therefore follow the custom of treating the different rots of sheep together; but we shall allow them to fall in their natural order, according to the plan pursued with the diseases of oxen.

The inflammatory and putrid fever, popularly known by the names *higham striking*, or *blood striking*, does not differ materially from the same disease in oxen and cows; and is in sheep also sometimes epidemic; appearing by panting, dulness, watery mucus from the nose and eyes; and great redness of all such parts as are usually white.

The *red water*. The inflammatory fever sometimes resolves itself into an universal secretion of serum throughout all the cavities; in which case after a few days, the lymph tinged with blood will come away from the nose and mouth in large quantities. Sometimes after death the bloody serum is found suffused throughout the skin as in the blood striking of skins.

The *clavenu* or *sheep pox* is also another variety of this disease, in which it takes on a pustular form. About the third day small variolæ appear: sometimes they are rather blotches than pustules. The weakness is usually extreme, and the putridity great. This form of the disease is seldom seen with us; but is still known on the continent, where the pastures are very poor and low, and the general keep meagre.

The *treatment* of all these in no wise differs from that directed under the inflammatory putrid fever of the ox. The doses of medicines being about a third of what is directed for them. [See No. 41.]

Malignant epidemic or murrain. Sometimes an epidemic prevails, which greatly resembles the murrain of oxen: in appearances, termination and treatment it resembles malignant epidemic of oxen.

Peripneumonia or *inflamed lungs, rising of the lights, glanderous rot, hose, &c.* These terms are all modifications of an inflamed state of the viscera of the chest, caught by undue exposure, bad pasturage, and often from over-driving. The cough, the tremblings, the redness of the eyes and nostrils, and the distillation of a fluid from them, with the heavings and hot breath, are all similar to those which characterise the pneumonia or rising of the lights in oxen. We remember to have seen the disease strongly marked in the February of 1808, on a farm in the neighborhood of Streatham; where eleven sheep were attacked almost together, after a very stormy night. They were first affected with a loss of appetite; next with a fixed steadfast look, which was common to every one. After, this, they reeled about, fell backwards, and became convulsed. When seen, five were already dead, whose internal appearances fully confirmed the nature of the disease. The rest recovered by bleeding and drenching, with drenches composed of nitre and tartar emetic. Sometimes, the symptoms of pneumonia do not kill immediately, but degenerate into an ulceration of the lungs; which is then called the *glanderous rot*. This stage is always fatal: the others may, by early attention, be combatted by judicious treatment, as detailed under the same disease in oxen.

A chronic cough in sheep, when not symptomatic of rot, is always cured by a change of pasturage, particularly into a salt marsh.

Inflammation of the stomach occurs from various causes. A common one arises from eating noxious vegetables; and produces the affections termed *tremblings*. It also produces the *grass ill* in lambs; which latter is always accompanied with black, fœtid fæces, and is readily removed by an ounce of castor oil; while the former usually yields to half an ounce of oil of turpentine, beaten up with the yolk of an egg. Some herbs (as Atropa belladonna,) when eaten produce spasmodic affections, which are called by shepherds the *leaping ill:* in such cases the watery solution of aloes in doses of two or three ounces is useful. Daffy's elixir we have also known to be given with good effect.

The hove, blast, or wind colic.—Sheep are as liable to be distended with an enormous collection within the maw as oxen. An instrument, similar to that invented by Dr. Monro, is also made for them; and when not relieved by these means the same remedies are applicable, as are directed for oxen.

A wind colic will also sometimes affect sheep more from the quality than the quantity of what they eat; it is best relieved by an ounce of castor or sallad oil with an ounce of gin.

Inflamed liver, blood rot, or hot yellows, are liver affections, arising from fever settling in that organ; or from obstructed bile irritating it. Sometimes there are great marks of fever; and at others more of putridity; according to which, treat as may be gathered from ox pathology.

Jaundice also now and then occurs, when refer to that disease in oxen.

Dysentery, gall scour, braxy, are all affections brought on by sudden changes of temperature, or of undue moisture acting with cold pasturage. It is often seen in sultry autumns:—treat as under ox braxy.

Scouring is the diarrhœa of sheep, and in very hot weather soon carries them off It should be early attended to, by abstracting the affected, and housing them. The *treatment* is seen under diarrhœa of oxen, which it closely resembles.

Pinning, tag belt, break-share. The two former are only the adhesion of the tail to the wool, and the excoriation brought on by diarrhœa; the latter is the diarrhœa itself, known to some by this term.

The *rot in sheep* is also called *great rot*, and *hydropic rot*, &c.; but it is more popularly known by the single term of *rot*. Many causes have been assigned for it, as the *fasciola hepatica*, or fluke worm; some particular plants eaten as food; ground eating; snails, and other ingesta: but, as most of the supposed deleterious herbs have been tried by way of experiment, and have failed to produce the disease, so it is attributable to some other cause.—Neither is there reason to suppose that the fluke worm occasions it, since we know that the biliary vessels of other animals, as horses, asses, rats, &c. often have them: and above all, because that they are not always present in the rotted subject. From long experience, and the almost invariable effect produced by a humid state of atmosphere, soil, and product, we are warranted in concluding these are the actual and immediate agents: perhaps the saturated food itself is sufficient to do it. The morning dew has been supposed equal to it. Bakewell, when his sheep were past service, used to rot them purposely, that they might not pass into other hands. This he always readily did by overflowing his pastures. But great differences of opinion exist as to the quantity, form, and varieties of moisture productive of this fatal disease. It is said that land on which water flows, but does not stagnate, will not rot, however moist: but this is contradicted by the experience of Bakewell, who used merely to flood his lands a few times only, to rot his sheep. It is also said that they are safe from rot on Irish bogs, salt marshes, and spring flooded meadows, which experience seems to verify. It is also said, that the very hay made from unsound land will rot; but this wants confirmation. When salt marshes are found injurious, it is only in such years when the rain has saturated, or rather super-saturated such marshes. That putrid exhalations, unaccompanied with moisture, can occasion rot, wants confirmation also: for these commonly go together, and it is difficult to separate their effects. It is not, perhaps, the actual quantity of water immediately received by land, but the capacity of that land to retain the moisture, which makes it particularly of a rotting quality.

The *signs of rottenness* are sufficiently familiar to persons about sheep. They first lose flesh, and what remains is flabby and pale; they lose also their vivacity. The naked parts, as the lips, tongue, &c. look livid, and are alternately hot and cold in the advanced stages. The eyes look sad and glassy, the breath is fœtid, the urine small in quantity and high coloured; and the bowels are at one time costive, and at another affected with a black purging. The pelt will come off on the slightest pull in almost all cases. The disease has different degrees of rapidity, but is always fatal at last. This difference in degree occasions some rotted sheep to thrive well under its progress to a certain stage, when they suddenly fall off, and the disease pursues the same course with the rest. Some graziers know this crisis of declension, as it has been called, and kill their sheep for market at the immediate nick of time, with no loss. In these cases, no signs of the disease are to be traced by ordinary inspectors; but the existence of the flukes, and still more, a certain state of liver and of its secretions, are characteristic marks to the wary and experienced.

The treatment of rot is seldom successful unless when it is early commenced, or when of a mild nature. A total change of food is the first indication, and of that to a dry wholesome kind: all the farina are good, as the meals of wheat, barley, oats, pease; beans, &c. Carrots have done good mixed with these: broom, burnet, elder, and mellilot, as diuretics, have also been recommended; but it is necessary to observe, that there is seldom any ventral effusion but in the latter stages of the complaint. As long as the liver is not wholly disorganized, the cure may be hoped by a simple removal of the cause, which has been shown to be a variable temperature, with excessive moisture of pasturage, which may also be aided by such remedies as assist the action of the biliary system; salt acts in this way, and thus salt mashes are good; salt may also be given in the water. Salt appears the principal ingredient in Flesh's patent restorative for sheep, for it states it to be composed of turpentine, sal ammoniac, turmeric, quicksilver, brimstone, *salt*, opium, alkanet root, bark, antimony, camphor, and distilled water; but of this medley none of the articles can be in sufficient quantity to prove useful, but the salt. In the more advanced stages of the disease, when the liver has become materially affected, it is prudent to rub the bellies of each sheep with half a drachm of mercurial ointment every other day for a week. Give also the following every morning: watery tincture of aloes, half an ounce; decoction of willow bark, four ounces, nitric acid, twenty-five drops.

The pelt rot, hunger rot, or naked disease, is a variety of the former, but with this difference, that whereas the liver in the hydropic rot is principally affected; in this the whole of the chylopoietic viscera are injured; the mesenteric glands are always swollen and obstructed, and from thence arises the emaciation and unhealthy state of all the secretions, by which the rot becomes incapable of receiving nutriment, and falls off, leaving the body bare, and in the last stages the teeth and horns also loosen. Indifferent, unhealthy keep, is a very common cause of this malady, and a contrary course of feeding is the best remedy when the disease has not gone on too long.

The scab, shab, ray, or rubbers, are sometimes erysipelatous eruptions, and sometimes they are psoric or mangy ones. In the former instance they are universal and very red, occasioning a great heat and itching, and are thence called the *rubbers.* In such cases, nitre, administered quickly, relieves, with change of food. The eruptive scab is seldom cured without an external application; either of those directed for mange, lowered to half the strength, will relieve it at once.

Foot-rot sheep have a secretory outlet between the claws peculiar to them, which is liable to become obstructed; their feet are also liable to become injured and then diseased, from travelling or continued standing on wet soils: but the real foot-rot is an endemial affection which sometimes attacks half of the flock. It must be attended to by removing all diseased portions, and then dressing with the thrush paste, or foot-rot application, and afterwards wrapping up from external exposure.

Staggers, gid, turnsick, goggles, worm under the horn, sturdy, watery head, and pendro, are all popular terms for hydatids, or an animal now known as the tænias globulus, which, by some unaccountable means, finds its way to the brain, and settles itself there either in some of its ventricles, or more frequently on its substance. Their size varies from the smallest speck to that of a pigeon egg, and the sheep it attacks are usually under two years old.—These animals are likewise occasionally found in all the natural cavities of the body.

The appearances of cerebral hydatids are, stupidity, a disposition to sit on the rump, to turn to one side, and to incline the head to the same while at rest. The eyes glare, and from oval, the pupils become round. An accurate examination will now usually discover some softness at a particular part of the skull, generally on the contrary side to that on which the animal hangs the head: when no softness of the skull is discernible, the hydatid usually exists in some of the ventricles, and the destruction of the sheep is certain and quick, from the greater disturbance to the functions of the brain; but when it is situated on the surface, it sometimes requires many months to destroy; an absorption of the bone taking place as the hydatid increases, which produces the thinness in the skull opposite to the affected part.

This disease is not incurable, as has been supposed, but it is only relieved by a manual operation. In France it has been successfully treated by the application of the actual cautery; a pointed iron, heated red hot, is forced through the skin and skull, to the surface of the brain; the principal nicety of which, is in penetrating the hydatid with the hot iron without wounding the brain itself. In England, some shepherds are very dexterous in *wiring*, which they do by thrusting a wire up the nostrils till it rests against the skull. In the passage of the wire, the hydatid is usually ruptured; others elevate the skull (by means of a trephine, or even a knife,) opposite to the softened portion, and extract the hydatid, if possible, whole, which a little care will effect, by drawing it away with a blunt pincer, gently moving it from side to side. Tapping is merely letting out the fluid contents of the hydatid by an awl, which is practised by some shepherds with success; and if the instrument be not thrust too far, the animal is never injured: to avoid which, it is passed obliquely. A well hardened gimblet is a very proper instrument, with which the skull is easily penetrated, and an opening by the twisting of the instrument is made, sufficiently large in the hydatid itself, to discharge its contents, which is all that is sufficient to insure its destruction, and which, if no other exist, is followed by immediate recovery.

Frontal worms. Sheep are observed to gather together, with their noses thrust inwards to avoid the attack of the œstrus ovis, or fly, that lays its eggs on the inner margin of the nose, which, having become hatched, the larva creep up into the frontal and maxillary sinuses, to the torment of the sheep. The continental shepherds trepan an opening into these cavities, and effect their removal; but our shepherds have not succeeded in the operation.

Fluke worms are a parasitic animal, found in the biliary sinuses, not only of the sheep, but of the horse, ass, goat, deer, &c., and whose existence is rather a consequence than a cause of morbidity.

The diseases of lambs are confined to indigestion, and eruption of secretive matter: the former shews itself in colic, which is relieved as in sheep, and also by diarrhœa, to be likewise cured by the means detailed for them; the latter is more obstinate, and begins on the rump, gradually extending along the chine, and when it becomes more universal, it usually destroys. The cure consists in giving daily drinks of half a drachm of cream of tartar, and one drachm of sulphur, in four ounces of chamomile decoction. Anoint also with mild mercurial ointment and Turner's cerate in equal quantities.

CORN CROPS.

MR. SKINNER, *Alexandria, D. C., Feb.* 12, 1829.

I am one of your original subscribers, and feel under many obligations to you and your numerous subscribers and correspondents for the quantity and variety of matter and information which you have made weekly distribution of. I live, sir, in profound retirement, six miles from town, without wife or child, and attend to few things with more regularity than sending to the Post Office for my newspapers; and I can assure you, sir, that I hunt through the parcel with great avidity for your useful paper, the "Farmer." I have lately been much amused by the spirit which has been excited upon the subject of large ears of corn, intermixed, as it was, with some account of "large corn stalks." Now, sir, I like to see this strife; for there is marrow at the bottom of it. If the spirited part of your subscribers, who make large crops of corn, would give us a particular account of their manner of preparing and cultivation, and then the *whole* result, I make no doubt of their receiving the thanks of many, very many of your subscribers. I would also take the liberty of suggesting to the cultivators of the soil, that they would deserve the thanks of many if they would state the size of their farms and the number of acres they manure each year. This I consider as the pith and marrow of good farming. It is in farming, what charity is in religion; it covereth a multitude of deformities. I would urge this the more, because I find that some of your correspondents manure from one hundred to one hundred and fifty acres of land per year.—Now, sir, I have 600 acres under the plough, and one third is annually turned, and I cannot, for my life, manure more than thirty acres one year with another. Have I to learn, after thirty years of proud ambitious service, that I am only one-fifth of a farmer; and this, too, in the teeth of the fact that I have made ten bushels of wheat grow where one formerly grew? I am no boaster, sir, for I feel conscious that I have not done more than one half of what I should have done. When I speak of manure, or read of it, I understand it to be vegetable matter in a state of decay; and when spoken of by a farmer, without particular reference, I always understand that it has been made upon the farm. It is the fat of land, and he who makes the most and applies it judiciously, must be the best farmer. It is the food of vegetables, and they, like animals, can only exist in proportion to their food. I am not, however, sure that great feeders are great breeders, either in the animal or vegetable kingdom; but I think that your large corn stalks must have been very kind feeders and well served. I am sorry to inform you that we have very discouraging prospects for wheat. Great rains, followed by hard frost, and then thawing and rain again, has washed our lands very much, and thrown a great quantity of wheat out of the ground. No precaution can save it; much must be lost that was put in with the harrow; that which was put in with the plough appears to make more successful resistance. I have seeded, by the way, largely of an early sort of wheat, of a kind I have never before seen; it is flinty and yellow, and succeeded well upon wet land. It was put into the ground upon the 10th of October, and harvested on the 10th June—a very good crop, and weighed 62 lbs. to the bushel. Should it succeed the coming season, I will give you farther advice. Let me, however, say, that I do not think it will bear grazing, as Mr. Goldsborough thinks his will.

FAIRFAX.

FARMERS' ACCOUNT BOOKS.

MR. SKINNER, *Frederick county, Va., Feb.* 3, 1829.

One of your less humourous correspondents begs leave to offer a few brief remarks on the subject of the farm accounts, judiciously recommended in one of your late numbers; or rather, he would be pleased to derive an advantage coming out of the plan, by basing some inquiries on them. To touch, then, but a single item, it occurred to him that it would be a very useful and improving employment for two little girls, ten or twelve years old, to keep a dairy account of milk and butter, alternately, every week throughout the winter, with the expectation of an appropriate premium for the fairest account, and the greatest turn out of milk and butter. The result of the first two weeks has produced the following inquiry, as the product of butter from a given quantity of milk is esteemed very far below par:

54 gallons the first week, and 53 the second, producing only about 14½ lbs. each week. Three cows are fed on orchard grass and clover hay, and trough-fed with 1½ bushels of potatoes, 2 of wheat bran, chaff, and the offal of the kitchen, &c. divided amongst them twice in the four-and-twenty hours. They are kept warm and clean. Under such circumstances, what should be a reasonable turn out of butter from each gallon of milk managed with tolerable skill? This is the question I must respectfully solicit some of our dairy folks in the small way to reply to, as speedily as their convenience will permit. To conclude, permit me to add my humble testimony, that accurately kept farm accounts are as indispensable to the farmer as the more formal ones are to the merchant.

A Plain Farmer.

CULTURE OF SUGAR.

Extract of a letter from East Florida—dated St. Augustine, Jan. 28, 1829.

"Sir,—I have to acknowledge the receipt of your letter of the 2d inst., with the valuable documents enclosed, for which I thank you.

"I understand that Mr. —— left this with an impression that sugar could not be made here; that although the cane grew well and might make syrup, that it would not granulate so as to make sugar. I have now positive proof in my possession, that would convince Mr. —— that he was mistaken. I had prepared a small tin box, with a sample of 17 barrels, made by Col. Humphreys, which I intended to have sent you, but found that the weight exceeded the limits of franking, and was obliged to decline sending it; but the best judges pronounced it superior to any that they had ever seen from New Orleans, and fully equal to any imported from Jamaica, Barbadoes, or St. Croix, and could not be surpassed in quality. Mr. Dammett, although badly equipped and only commenced grinding the middle of December, has made very fine sugar, and is now making about 1000 to 1200 lbs. per day. Mr. Kingsley, north of this on the St. Mary's, has completed grinding his crop, and is sufficiently encouraged to extend his cultivation. McIntosh, in the Atachua, has exceeded his expectation both in regard to quantity as well as quality. The small planters have been equally successful.

"Since your departure we have had many strangers visiting this quarter in search of sugar land; several of them have located near this.

"As a proof of the confidence now fully established of this being a sugar country, the demand for seed cane has been such, that it now sells for more than it would be worth manufactured into sugar."

TOBACCO—INQUIRY.

J. S. Skinner, Esq. *Richmond, Feb.* 2, 1829.

Sir,—I am a young Virginian, bred to the bar, but finding agricultural pursuits more congenial to my nature, have resolved not to make any practical use of my legal knowledge at present, but to court those pleasures afforded by the tranquility of the country, and to become a candidate for that prosperity, which almost universally attends those who devote their *whole* time and *undivided* attention to agriculture. I have said thus much of myself, to prepare you for the inquiries I shall proceed to make. The purport of my letter is to ascertain: 1st. Whether there are any peculiarities in the management of the kite-foot tobacco, other than that which regards the topping? 2d. Whether it only succeeds when planted in a light rich loam? That peculiar soil, whatever it is, upon which it is more generally grown? And, 3dly. Whether in curing it, you use as much fire as we do in this state?

Being anxious to make an experiment, I wish to possess myself of as much information as possible, previous to the period at which the plants are transferred from the beds to the hills. Should you not choose to take the trouble of responding to these questions, an insertion of this hasty letter in your valuable paper, might induce some "*gentleman farmer*," who has both leisure and ability, to answer my questions. If you can communicate the information without, I shall be perfectly satisfied. You shall shortly hear from me in another capacity, (that is, as soon as I can become permanently fixed,) that of

A Subscriber.

To Dry Cows, which you wish to Fatten.

Take an ounce of powdered alum; boil it in two quarts of milk till it turns to whey; then take a large handful of sage, and boil it in the whey till you reduce it to one quart; rub her udder a little with it, and give her the rest by way of drink; milk her clean before you give it to her; and as you see need requires, repeat it. Draw a little milk from her every second or third day; lest her udder be overcharged. [*Monk's Agric. Dict.*

CALVES.

Young's Annals state the following as a remedy for the scouring of calves: Powdered chalk and wheat meal moistened with gin and worked into a ball should be given the animals.

(From the New England Farmer.)

HORN AIL IN CATTLE.

Mr. Fessenden,—I found the receipt in your paper, of January 9th, for the cure of the horn ail to be ineffectual, by experiment on an ox, last April. In the month of October, one of my oxen in high flesh, appeared to be unwell, refused to eat but little, and soon became so weak as to reel in walking, breathed very hard, and discharged such immense quantities of putrid matter from his nose, that we supposed the internal parts of his head were perishing. By the advice of a large owner of cattle, I freely applied spirits of turpentine on the top of the head, along the roots of his horns, for a number of days with apparent success, as he soon began to feed well, and in a few weeks I sold him for market. It is a severe remedy, throwing the animal into extreme agony.

Yours respectfully,

Norwich Feb. 1, 1829. Thomas Hazen.

HORTICULTURE.

ON THE CULTIVATION OF THE VINE.

Mr. Skinner: *Buckingham County. Feb. 2d,* 1829.

Dear Sir,—Although much has been written and printed, in the American Farmer, on raising grapes, the management of Vineyards, and the making of wine; yet it would seem that much still remains to be supplied, in order to give to gentlemen disposed to engage in the business, such a knowledge of the subject as will induce them, more readily, to enter upon it, and inspire them at the same time, with a proper degree of confidence in being able to conduct it to a successful and happy result.

I have always considered that one of the principal objects to be attained was to make ourselves acquainted, in the outset, with all the different parts of the vine and the technical terms by which they are usually designated; as upon this mainly depends the art of pruning and dressing the vines properly, and in regard to which, all the publications I have seen, appear to be eminently deficient. Indeed it may well be said to form one of the very foundations of the science: for, ignorant in these particulars, all our operations must be made at random and we should be far more likely to do injury than good. And thus, after having fatigued ourselves with various fruitless attempts, and been repeatedly subjected to the mortification of disappointment, it should not be wondered at if we finally determined to abandon the project altogether and should throw it up in disgust. Yet there is nothing more obviously certain than that, possessed as we are with a soil and climate superior to a great portion of the wine countries of Europe, particularly as it relates to the Southern States, if we will but exercise a due degree of patience and perseverance, making such judicious variations in the European methods of managing their vines, as may be found necessary to adapt them to our own soils and climates (which a little experience and observation will readily enable us to do) we shall have no more reason to doubt of our success, than we now have of being able to rear apple orchards, and make cider.

With the view of supplying, in some measure, the information here spoken of, I have taken the liberty of transcribing and sending to you, for publication, some extracts from a valuable little manuscript treatise, now in my possession, drawn up many years ago, by the late Col. Robert Bolling of this county.

It is now but little known that this gentleman had early turned his attention to the cultivation of the vine, and had actually succeeded in procuring and planting a small vineyard of four acres, of European grapes, at Chellow, the seat of his residence: that he had so far accomplished his object as to have the satisfaction of seeing his vines in a most flourishing condition, and arrived at an age when they were just beginning to bear; promising all the success that the most sanguine imagination could desire, when, unfortunately for his family, and perhaps for his country, he departed this life while in the Convention in Richmond, in July 1775. Thus all his fond anticipations of being enabled, in a short time, to afford to his countrymen a practical demonstration of the facility and certainty with which grapes might be raised, and wine made, in Virginia, were suddenly frustrated; all his hopes and prospects blasted; and owing to the general want of information, in the management of vines, among us at that time; and the confusion produced by the war of the revolution, which immediately followed, this promising and flourishing little vineyard was totally neglected and finally perished.

Previous to this event, however, he had drawn up this little work, under the title of "a sketch of vine culture," with the apparent design of laying it before the public, in the hope of contributing somewhat in infusing into the minds of his countrymen a desire to engage in the healthy, agreeable and lucrative employment of vine planting.—His death prevented its publication at the time and it has remained in manuscript to this day and although a great portion of it may be said to be a mere compilation from other authors, yet as he spared no pains to prepare himself, so as to be able to make his selections with judgment, and has added only such remarks as were warranted by his own observation and experience, it is confidently believed it will not be thought to possess the less merit on that account, but will be equally and perhaps more acceptable to the public than if it was altogether the production of his own genius.

Extracts.

"*Foot of the vine.*—The part which touches and penetrates the earth until lost in the branches of the roots. These are of two kinds, the main and summer roots. The first take deep hold in the earth: the last are superficial and are taken off in ablaqueating or unshoeing the vine."

"*Trunk or Stalk.*—What lies between the foot of the wood of two years or the subviette. When the stalk is made to branch and has two or more sub-viettes, those ramifications are called *stalk-branches:* they should be adjusted to lie along the row."

"*Recourses.*—When the vine grows too high, or too languid; and especially when the branches grow bigger than the parts by which they are sustained, they are directed to be taken off, and to supply their place, the vine planter has always ready one, two or more branches, trained from the stalk, or its principal branches—these trained branches are called recourses. They are pruned to two or three buttons in the same manner as the viettes, next mentioned, and may properly be called recourse-viettes." "The fashion of recourses is an important article in vine dressing. A want of knowledge of or attention to which, has ruined abundance of vines in Virginia; without it, the fruit will soon be deprived of quality."

"*Viettes.*—When astes or branches of the spring before, which grow upon the wood of the spring before that, are refreshed, at the time of pruning, to three or four buttons, with a view to their producing fructuary astes and viettines the next year, the stumps left are called viettes or heads.* The part they grow from (viz. the viette of the last season,) is now called the neck or subviette, and all below the subviette, as far as the earth, is stalk: so that the viette of one year becomes a subviette the next; and what was its subviette is lost in, and adds to the height of the stalk."

"*Astes* are branches of the viettes, and are of two kinds, viz: the strong or fructuary, and the feeble or virgin; which last, more properly called viettines, are a species of recourses, as the vine is cut down to them, though in this treatise never so called; that term being always confined to recourses from the stalk or stalk-branches, for giving the vine either a total, or at least a considerable renovation."

"*Astelings* (the principal object of browzing,) are sprouts which rise at each joint of the aste, between the leaf and the stem."

"*Counter-buttons*, or *Virgin-buttons.*—These are buds for the next year's branches, growing opposite to the fruit or tendrils of this year."

"*Counter Astelings.*—Sprouts from the counter-buttons."

"*Subviette.*—The neck of the vine. (See the article viette.")

"*Main viette.*—Suppose you are going to prune a vine in the month of November or March; you will see on the highest viette of the last summer, say, two strong astes which bore fruit; and two feeble astes or viettines which either did not bring fruit, or from which the fruit was early removed. You are directed above to take off the strong astes. That is done by separating the viette an inch above the highest viettine. The two viettines are now in readiness to be cut down into viettes.—The highest is called the main viette."

On Planting.

"The vine is propagated by slips or cuttings, Barbets or quicksets, Crossettes, Suckers, Provines, Provines in Panier, Provines in Turf, Provine-suckers and Seeds."

"*Slips.*—Twigs or astes which grew the preceding summer on the viette, with from four to seven (and not more) buttons."

"*Crossettes.*—The lowest parts of the astes, with an inch of the viette on which they grew, crossing their lower extremity."

"*Barbetts.*—Slips or crossettes of from ten to fourteen inches long (according as their buttons are are more or less apart; which having been planted in a nursery towards the end of February or beginning of March, have taken root: to be thence removed after two leaves," (here I suppose he means two summer's growth) "at either of the times aforesaid, and replanted, as soon as raised, in the pastinate." (i. e. the vineyard.)

"*Suckers.*—These grow from the foot of the vine, and are separated for planting when the foot is unshod at" (after) "the fall of the leaf. Treat them as Barbets.—'Tis a negligence to have them at all, as will further appear hereafter; but when they are suffered to grow, they may turn to account, if the wood be well formed. But if the least degree of greenness remain in them, or indeed in any other parts of the vine; so much as is green will inevitably perish in winter."

"*Provines.*—Layers for furnishing new plants, and here have no other meaning, though provining is used sometimes by others to signify also the total laying of vines to the branches of the last season, for the purpose of reviving their decayed vigor."

As to the Provines in Panier and Provines in Turf it is deemed unimportant to furnish the extract.

"*Provine-Suckers.*—This method is taken from a book called 'the Vineyard.' It unites almost all the above characters in the same plant. Bury a vine totally in trenches, branching as the vine does, so that every branch may have a distinct trench, all uniting at the one which holds the trunk. The vine thus disposed will put forth roots at every joint that summer. The spring following (or a year or eighteen months afterwards) a multitude of suckers will appear from all the branches, stalk and roots. The November or March following their appearance, take up all the buried branches &c. with their young shoots: cut off the shoots with an inch or two of the wood they grew upon: take from the shoots their hairy roots, as in the barbet, and plant immediately where they are to remain."

"*Seeds.*"—After stating that the raising of vines from seeds was very generally condemned: that Bidet asserts that seedling vines will flower but not bear fruit; the flower always running: that Virgil and others, while they admit the fruit, deny their goodness, he says; "experience, in Virginia, has not confirmed the assertion of either as to the want, or indifference, of the fruit: witness the fine grapes raised by Theodorick Bland Esq. from the seeds of raisins."* He also says, "he has known vines, raised from seeds to grow to the length of three feet the first year. And that, with proper pruning, they will bear fruit the third or fourth year at farthest."

If it was allowable for one, who does not pretend to any experience in the matter, to express his opinions, I would venture to recommend sowing the seeds of raisins and other foreign grapes, as the most likely method of obtaining valuable varieties and more congenial to our soils and climates than those are generally found to be.—They should be sown in nurseries and there suffered to remain till they bore fruit, when such as we approved might be removed to the vineyard and the rest either grafted or extirpated.

There is one remark I wish to make, as I do not remember to have seen it noticed by any other writer, which is this; that different kinds of vines, are, probably, adapted to different kinds of soils and situations, and that, for want of attention to this fact, much of our disappointment, in our attempts at vine culture, may, very possibly, have arisen.—Some vines, such as the faux grape, &c. delight in bottom lands and on the banks of streams, while others prefer the plains, and even the dry and gravelly hills.—Should it be found to be a fact (and, that it is so, I feel the greatest degree of confidence) that the adaption of a vine, to any particular soil or situation, will readily manifest itself by the luxuriance of its growth, it will at once afford us an unerring guide to direct us in the choice of the kinds best suited to our vineyards.

Would it not be well for us to attempt the raising some new varieties, by marrying our native with foreign vines? The plan is this; plant each kind, alternately, in the same row.—Put up posts and lathes to tie them up to; and, in trailing them on these, so interlock their branches as that they shall be completely blended together. They will feed from the blossoms of each other, and when the fruit is ripe, if seeds are saved from it and sown in nurseries, suffering them to remain therein till they begin to bear, that we may the better judge of them, it is probable we may obtain varieties better adapted to our soils and climates, and better for wine or the table, than either of those kinds from whence they sprang.

It has been said that, by planting the Chinquopin under the Italian Chestnut, the blooms will mix and that the fruit from this mixture, when planted, will produce a nut more prolific than the Chestnut and much larger than the Chinquopin.

As the season advances and I find leisure I may probably furnish further extracts from the "sketch of vine culture," and in the mean time beg leave to subscribe myself your well wisher and subscriber.

LINÆUS BOLLING.

[We feel particularly obliged by the above communication of our correspondent, and hope his example will be followed by others. There are many technical terms in use among horticulturists, and Agriculturists too, that cannot be understood by the very persons for whose instruction and benefit they are intended. Hence it becomes necessary, before a young farmer is fully qualified for his profession, to study Botany—and even then he does not acquire full knowledge of all the technical terms of the various branches of his business, so as to enable him to understand the descriptions of his authors. We invite similar communications from our friends on any subject connected with Agriculture.]

A THRIFTY BEAN.

In the summer of 1827, I discovered among my bush beans a single vine remarkably thrifty, and throwing out runners. I erected a pole at the place and the vine was trained upon it. It grew during the summer with the utmost luxuriance and beauty, attracting notice from every passing traveller. When arrived at maturity it presented a complete congeries of pods. The number of beans from the vine was 1223, and the weight of 1¼ lbs. In the same ratio of increase I should have had, this fall 1528¾ lbs. or 1,495,729 beans—and in the autumn of 1829, 1,869,661¼ lbs. or 1,829,276,567 beans. [*N. E. Far.*

RURAL ECONOMY.

BEE MOTHS.

The sagacity of man enables him to discover the peculiar habits, which instinct leads the subordinate creation to adopt for self preservation, and his inventive faculty frequently suggests to him, some mode, by which the distinctive habits of such as are noxious may be conducive to their destruction. Thus we discover that instinct teaches the *Bee moth* to secrete herself during the day, in the corners of the hive. All, therefore, necessary to be done, is to take such advantage of this fact as that this most pernicious enemy shall rush to its own destruction. For this purpose let the orifice of the hive be four inches wide, and one inch high. At the commencement of the season for the moth, place a shingle on the bottom or floor of the hive. You will find in the morning that almost every moth has taken refuge under it. They are thus readily despatched. This is the mode I have practised with my own bees, and not a single hive has ever been injured.

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* "I generally use the term in that sense, though properly speaking, *astes* of the second year become *viettes*, whether pruned or not; it being essential only to viettes to be the parts whence the fructuary astes or branches arise."

* This is, no doubt, the origin of the celebrated Bland grape, so often spoken of, and generally supposed to be a native of Virginia. It is, I am inclined to believe, the "Broad leafed Malaga" stated by our author, in another place, to have been raised from raisin seeds.

[*N. E. Farmer.*

Improvement of the Light from Oil.

An English paper says, that if persons who are in the habit of burning oil in their families would take the trouble to filter it previous to use *through charcoal*, it would be found to burn equal in brightness to our best gas. The French, it is said, do this uniformly, and hence arises the admitted superiority, in splendour and brilliancy, of the lamps by which their saloons and public rooms are lighted.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL-ROAD.

In the Senate of the United States, February 11.

The Committee on Roads and Canals, to whom was referred the memorial of the Baltimore and Ohio Rail-Road Company.

REPORT.

The memorialists set forth that they are engaged in the construction of a rail-road, with at least two sets of tracks, from the city of Baltimore to the Ohio river, the entire expense of which, according to the best information, founded upon the cost of similar works in Europe, and the experience already acquired here, will not exceed twenty thousand dollars per mile, and will involve a total expenditure of between six and seven millions of dollars. Of this sum four millions are already subscribed and put at the disposal of the Directors,—one million by the State of Maryland and City of Baltimore, and three millions by individual subscriptions. Scientific officers of the Topographical Engineers have minutely examined the country through which it is expected the road will be located, and the most satisfactory assurances of its practicability, and of great facilities for its construction, are given. Surveys and minute locations of a large eastern division of this road have actually been made, and about twenty-five miles of the line are now under contract, and in a rapid progress towards completion.

Of the great importance of this road in a national point of view, the Committee do not, and it is believed no one will doubt. The country beyond the mountains in geographical extent is vastly disproportionate to the country east and south of that natural division of the Union, and the time is not far distant when the country of the Mississippi and its tributary streams will sustain a population greatly exceeding in numbers the division on this side the Alleghanies. The intercourse of the people of the west with the seaboard and the cities of the east, would be sufficient to secure the exertions of all in the construction of the best possible roads between these sections, independent of political considerations; BUT WHEN WE VIEW THIS WORK AS THE STRONGEST BOND OF UNION WHICH, PERHAPS IT IS IN THE POWER OF THE PRESENT AGE TO CREATE, its magnitude in a political point of view is almost incalculable.

The committee have not lost sight of other works of improvement in this direction to which the Government has heretofore extended a helping hand;—they have not forgotten the million recently subscribed in aid of the Chesapeake and Ohio Canal;—nor have they in any degree abandoned the high expectations entertained of that work. It will, however, be remembered that the most sanguine as to the success of the canal, have looked to the summit level section as one to be passed by a road of the best construction, instead of the canal,—and the tunnelling of the mountain as the work of another age, if ever accomplished. In this view of the subject, the Committee recommend an appropriation to be expended on the mountain section; to meet the company at Cumberland after they shall have progressed thus far, having demonstrated the practicability and utility of this description of road. In this way all the risk of experiment to the Government is avoided, for the company organized as it is, embracing a large portion of the intelligence and wealth of the city of Baltimore, and in the expenditure solely of its own funds, will, if the work shall not meet public expectation, be sure to abandon it before they reach Cumberland.

The Committee, however, think proper to remark that public confidence in this description of road is rapidly increasing. In England such roads have become numerous, and several successful experiments have been made of them in our own country. Experience and skill have greatly improved their construction, and a vehicle of recent invention peculiarly adapted to this kind of road, promises the most auspicious results. Four of these wagons are now in use on the construction of this road near Baltimore, and from actual experiment it is ascertained that one horse with these wagons, on a well constructed rail-road, will be able to do the labour of 80 horses with common wagons on common turnpike roads.—The Company have sent an able mission to England to examine the rail-roads and other such like improvements there, and the information thus obtained, will, no doubt, be highly valuable to our country. Such a work in the hands of such a Company deserves, in the opinion of the Committee, the aid and confidence of the government and they herewith report a bill.

A BILL

Authorising a subscription to the stock of the Baltimore and Ohio Rail-road Company.

Sec. 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of the Treasury of the United States, be and he is hereby authorised and directed to subscribe in the name, and for the use of the United States, for ten thousand shares of the capital stock of the Baltimore and Ohio Rail-road Company, and to pay for the same in the proportion that shall be paid upon the shares subscribed by other individual or corporate stockholders: *Provided*, That no money shall be paid upon said shares; until the Baltimore and Ohio Rail-road Company shall finish and put in operation the Rail-road from Baltimore to the Potomac river, and shall give to the Secretary of the Treasury sufficient assurance that the whole amount of money paid upon said shares, with an equal amount of the other funds of the Company, shall be applied in making the Rail-road between Cumberland in the State of Maryland and the Ohio river.

Sec. 2. *And be it further enacted*, That the Secretary of the Treasury shall vote for the President and Directors of said Company, and shall receive upon said stock the dividend and proportion of tolls which shall, from time to time, be due to the United States, and shall have and enjoy in behalf of the United States, every other right of a stockholder in said company.

Sec. 3. *And be it further enacted*, That the amount of money to be paid upon said shares, subscribed in behalf of the United States, not exceeding one million of dollars, shall be paid out of any money in the Treasury not otherwise appropriated.

RAIL-ROADS.

In the Massachusetts Legislature on Saturday last—Mr. Makepeace of Cambridge occupied the House of Representatives with a detailed and interesting exposition of the value of Rail-road improvements nearly the whole forenoon, after which the vote was taken and the following resolution adopted, without a division:

Resolved, That the construction of a Rail-road, from the city of Boston to Providence, and from the city of Boston to the Hudson river, would essentially promote the great interests of Agriculture, Commerce, Manufactures, and the Arts, throughout this Commonwealth.

The question then recurring on the following resolution,

Resolved, That provision ought to be made by law, for the construction of such Rail-roads by the State.

Mr. Sedgwick moved to amend this resolution, by adding the following words:—"Provided that the Lands owned by the commonwealth of the State of Maine, together with the profits which may be derived from such Rail-roads, shall stand pledged and be the only pledge, for the payment of such loans as shall be made for the purpose, together with five per cent interest thereon."

This amendment was ordered to be printed and the further consideration of the resolution was to have been commenced on Monday last, and we have no doubt the resolutions will be adopted.

LADIES' DEPARTMENT.

ON FAMILY GOVERNMENT.

In spite of modern whims of equality, the government of a family must be absolute; mild, not tyrannical. The laws of nature, and the voice of reason, have declared the pendence of the child on the parent. The weakness of youth repressed by the hand of age and experience. Parental tenderness is too apt to degenerate into parental weakness. "If you please, child," and "will you, dear," are soon answered with, "No; I wont." The reins of the government should be always gently drawn; not twitched like a curb bridle at one time, and dangled loosely at another. Uniformity in parents produces uniformity in children. To whip one minute, and to caress, or let the culprit go unpunished, for the same crime, at another, cannot fail to injure the force of parental authority. Consider before you threaten; and then be as good as your word. "I will whip you, if you don't mind me," says the parent in a passion. "I am not afraid of it," says the child. The parent flies towards it in a paroxism of rage: the child prefers flight, to broken bones. "You may go now, but you shall have your punishment with interest, the next time you do so." "I don't believe that," thinks the child. It is experience that gives the parent the lie.—"But," say you, "whips and rods were the scourges of the dark ages; the present age is more enlightened: in it law is reason; and authority is mildness. Beware of that reason which makes your child dogmatical, and that mildness which makes him obstinate.

There is such a thing as the rod of reproof; and it is certain that in numberless cases arguments produce a better effect than corporeal punishment. Let those be properly admonished, in case of disobedience: if ineffectual try the harsher method.—Never begin to correct till your anger has subsided; if you do, your authority over the offender is at an end. Let your commands be reasonable. Never deliver them in a passion, as though they were already disobeyed; nor with a timid distrustful tone as if you suspected your own authority. Remember that scolding is directly the reverse of weighty reasoning. It is the dying groans of good government. Never let it be heard under your roof, unless you intend your house should be a nursery of faction, which may at some future time, rear its hydra head, not only against you but in opposition to the parents and guardians of our country. Patriotism as well as charity, begins at home. Let the voice of concord be heard in your family: it will charm your domestics to a love of order.

INVOCATION TO THE ECHO OF A SEA SHELL.

By Alaric A. Watts.

Murmurings from within
Were heard, sonorous cadence; whereby
To his belief, the monitor expressed
Mysterious union with his native sea.
Wordsworth.

Voice of the deep, illimitable sea,
Discarded off-spring of the wind and wave!
Who, like a captive struggling to be free,
Thus ever moan'st in thy mysterious cave—
Art thou a syren, by some sea-god's spell
Prisoned in this smooth shell?

Or, but a spirit of the "vasty deep,"
Called up to earth by some enchanter's wand?
Whose was the charm that broke thy long, cold sleep,
And brought thee, murmuring, from thy parent-sand?
How wert thou ushered to the realms of day,
Syren, or Spirit, say?

Yet more—I would know more! I burn to pierce
The hidden secrets of thy ocean home:
Where are the victims of its surges fierce,
Who dreampt of calms, and wakened 'midst its foam;
The souls that perished 'neath the stormy wave,
When none were nigh to save?

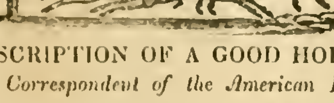
Where are the stately ships, and gallant crews,
Whose hapless fate is sealed to all beside?
The warrior bold a fear that never knew,
The love-linked pair whom death could not divide;
(For thou hast seen them in their last embrace,
Calm, sleeping face to face?)

Fond hearts and true—the beautiful and brave—
Childhood's bright hair—the veterans locks of gray;
Foemen and friends, sink down to one wide grave;
And none are spared to tell us where they lay.
Where are the lost and loved so many seek?
Speak, I conjure thee, speak!

How dost thou answer?—With a low, sweet dirge;
Sad as the booming of the sullen main,
The far-off warnings of the restless surge,
When storms are growing into strength again!
Perchance a requiem for the glorious dead,
Youth, beauty, valour fled.

Whate'er thy source and purpose, I rejoice
To list thy mystic murmurings, soft and clear:
To me thou seemest like a still, small voice,
By conscience whispered in my world vexed ear,
To lead my soul from grovelling things of earth.
To hopes of loftier birth!

SPORTING OLIO.



DESCRIPTION OF A GOOD HORSE,

By a Correspondent of the American Farmer.

A full bred race horse, of unexceptionable form and figure, should have a *small bony head*, with *straight* face, and moderately large, stiff, well pricken, thin ears, with capacious nostrils, which, when agitated, disclose a *deep red colour;* the eyes should be placed at the extreme corners of the forehead, of a deep brilliant colour—not *sunken, prominent*, or *glassy*, but *large, round*, and *full;* forehead broad and tapering off at the top; the neck should join the head with neither too great a curve nor yet so aslant as to turn the nose outwards; it should be rather long, and *full* on the crest; very small at the junction of the head, and placed on the shoulders to maintain a natural high carriage; mane *thin* and flowing, well turned over, and covering half the neck;—throttle small, (*pourquoi?*) the shoulder running very oblique, of great depth, with withers rising *high* and *thin;* the back *short*, neither swayed nor roached, but broad and *level*, with a strong coupling at the loin; the rump neither too straight nor perpendicular, but of good length, with great depth of quarters; the tail set so high on the rump as to throw a small prominence, with a strong *stiff* dock; the stern of an oval shape with large swelling muscles; body of a round form, with long ribs, the hindmost approaching the hip bone, which should be beautifully rounded; breast full and prominent, and of good width; fore and second thigh of great *length, size* and *flatness*, showing nothing but bone and muscle; hocks very *broad* and *bony;* from the hocks downwards, the leg should have a moderate bend, not ton *crooked*, or *straight*, which are evidences of weakness; the knees flat, very large, free from flesh, and not terminating too abruptly; cannon bone short as possible, with fetlock rather long, bony and slim; hoofs black, free from ridges, but round, of moderate size and smooth, with *low* heel and expansive frog; the hind pasterns not placed too upright, nor obliquely, but about an angle of 45 degrees. He should stand perfectly square on all his limbs, which in action should follow in a direct line, neither inward, nor outward, but straight in every movement; size 15 hands 3 inches high, with a carriage lofty and commanding, and a temper susceptible of the most unbounded animation.

This form, in *my opinion*, will come so very near a perfect animal, in point of power, symmetry, and elegance of figure, that *minute* defects will be concealed from scrutiny under so many characteristic excellencies. W. W. C.

DON JUAN AS A FOX-HUNTER.

A fox-hunt to a foreigner is strange;
'Tis also subject to the double danger
Of tumbling first, and having in exchange
Some pleasant jesting at the awkward stranger,
But Juan had been early taught to range
The wilds, as doth an Arab turn'd Avenger,
So that his horse, or charger, hunter, hack,
Knew that he had a rider on his back.

And now in this new field, with some applause,
He clear'd hedge, ditch, and double post, and rail,
And never *craned** and made but few "*faux pas*,"
And only fretted when the scent 'gan fail.
He broke, 'tis true, some statutes of the laws
Of hunting—for the sagest youth is frail;
Rode o'er the hounds, it may be, now and then,
And once o'er several Country Gentlemen.

But on the whole, to general admiration
He acquitted both himself and horse; the squires
Marvell'd at merit of another nation;
The boors cried "Dang it! who'd have thought it?"
Sires,
The Nestors of the sporting generation
Swore praises, and recall'd their former fires;
The Huntsman's self relented to a grin,
And rated him almost a whipper-in.

Such were his trophies—not of spear and shield,
But leaps, and bursts, and sometimes foxes' brushes;
Yet I must own—although in this I yield
To patriot sympathy a Briton's blushes—
He thought at heart like courtly Chesterfield,
Who, after a long chase o'er hills, dales, bushes,
And what not, though he rode beyond all price,
Ask'd next day, "If men ever hunted *twice?*"
[*Don Juan, Canto 14th.*

Mr. Milton, the celebrated horse-dealer, undertakes to drive one set of horses, in harness, from his stable in Picadilly to Windsor, in one hour and a quarter; distance 23 miles. If accomplished, it will be the greatest feat ever known in sporting annals: to come off this week. [*Lon. paper.*

WILD PIGEONS.

Piqua (Ohio), Jan. 3. Innumerable multitudes of pigeons have been for many days passing and repassing over this town. One flock which passed over, literally obscured the atmosphere, and could be observed in every direction as far as the eye could reach, and making a noise like a strong rush of wind. No calculation can possibly be made of its extent, with any degree of accuracy; but we should imagine, from the time occupied in their passage, that the foremost ones might have flown thirty miles by the time the latter part of the flock passed over! We have no doubt but that, if the pigeons in the one flock above noticed could be enumerated, they would at least amount to as many in numbers as the dollars lost by the Adams men in Baltimore, in the great bet. The weather, for several weeks past, has been almost as mild as during our Indian summer.

MISCELLANEOUS.

DOMESTIC ANIMALS.

Changes which take place in the Domestic Animals of Europe, when transported to America.

The mammiferous animals transported from the Old to the New World are the hog, the sheep, the goat, the ass, the horse, the cow, and the dog. 1st. Hog. This animal, in the hot valley of South America, where he wanders whole days in the woods, living chiefly upon wild fruits, loses speedily the marks of domestication, and partakes largely of the nature of the wild boar. The year 1493 was the date of his first introduction into the New World; and now he is found established from 25 degrees north latitude, to 45 degrees south, and every where breeds as plentifully as in Europe. 2d. The Cow. Animals of this species appear to require a considerable quantity of salt, as a part of their nourishment. When salt is placed where they feed, they return punctually to seek it: but when this duty is neglected by their masters the flock disperses and becomes wild. There is also a difference in the size of the udder, particularly in Columbia; where the milk is not reckoned of the same importance as in Europe. 3d. The Ass suffers hardly any alteration either in his form or habits. In some places where he is overlooked, and little cared for, he becomes deformed but no where does he lose his civilization. 4th. The Horse. Not so, with this animal; he finds chestnuts in the woods, and speedily presents one of the distinctions of wild animals—a sameness of colour, which with him is almost invariably chestnut. The amble is the pace most admired by the Columbians; they accordingly breed up their horses to this mode of motion; and it is no less remarkable than true that with the present race the amble is the natural pace, just as the trot is with ours. 5th. The Dog suffers no change. 6th. The Sheep in temperate climates, breeds as freely as in Europe, and never shows any inclination to escape from the dominion of man. In the warmer plains, they are more difficult of preservation. The wool grows slower, but if shorn at the proper time, present nothing remarkable. If, on the other hand, this time is allowed to pass, it is detached by the shears of nature; and instead of a new crop growing, as in other cases, a short, smooth, shining hair presents itself, resembling that of the goat of the same climate. 7th. The Goat, although with us a mountaineer, suits better the low warm valleys of South America, than the more elevated parts of the Cordilleras. The only change it undergoes is similar to that of the cow. [*English Journal.*

Extraordinary Despatch.—The *Queen of Scotland* steam ship, of 1000 tons, started from London for Aberdeen on Saturday, the 24th May last, at 11 o'clock, P. M. with goods, passengers, and carriages, and arrived at Aberdeen on Monday evening, at half past nine o'clock, performing a voyage of upwards of 500 miles in 46½ hours—16 hours faster than the mail of the same day, which left Lombard street at eight o'clock on Saturday 24th, and arrived at Aberdeen at half past ten o'clock on Tuesday morning following.

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* To crane—To stretch out the neck, to look before you leap.

(*From the Georgia Journal.*)

CASTOR OIL.

Monticello, 28th Jan. 1829.

Messrs. Camak and Rangland:

Gentlemen—I herewith forward you a specimen of home-made or *Anti Tariff Castor Oil* manufactured by our friend Dr. D. A. Reese of Monticello, which you will perceive is, in point of colour, odour, and purity, of the very best quality—I have administered it in my practice, and assure you that I have found it to be equal, in all respects, to any that I have ever used—Dr. R. made about six hundred bottles last year, notwithstanding the dry weather was very fatal on the bean from which it is manufactured; and having supplied himself with all the necessary machinery for expressing and clarifying it, he calculates to prepare it on a very large scale, if the seasons of the present year should be favourable to the growing of the bean. And as he is now proposing to sell the article as cheap as it can be purchased in Augusta (the freight, &c. included) would it not be advisable and *commendable* in our medical friends to encourage the projectors of such laudable enterprize?

In every section of the Southern country have the people expressed their determination to foster that praiseworthy spirit which looks to the production, at home, of all, of most of the articles of domestic consumption. What will all our spirited resolutions avail us if we do not make a practical application of their principles by encouraging our pioneering friends in useful improvements!

Please shew the specimen of oil to your medical friends of Milledgeville, and you will confer a favour on our friend Dr. Reese, as well as on your most obedient servant and friend.

EDWARD A. BRODDUS.

THE JACULATOR FISH.

Of all the wonderful contrivances by which the wisdom of the Creator has enabled various animals to procure their necessary food, few, perhaps, are more curious than the following: The Jaculator fish (*Choetodon rastratum* of Lin.) shoots its prey. This singular fish has only been observed in the Chinese archipelago, where it frequents the rivers and sea shores. Its food consists of flies or beetles, which settle upon trees and bushes overhanging the water; and to bring these into its own element, and thus within its reach, the Jaculator after approaching within a convenient distance, and fixing its eyes intently on its destined victim, discharges a drop of water from its mouth with such precision as seldom fails to bring down the object into the water, where it is immediately devoured. The Jaculator can shoot with effect to a distance of four, or five, or even six feet. It is described as a small fish, about six inches in length.—(*See Edin. New Phil. Jour.* 1828.

USEFUL INVENTIONS.

Mr. John W. Cooper, of Waynesburg, in Franklin county, Pennsylvania, has discovered (for which he has obtained patents,) a new mode of bleaching and whitening of flax, hemp, tow and cotton cloth, in the course of a few hours, without the least injury or damage to the strength thereof—and also, of making white paper from rags of cotton, linen or silk, be their colour ever so various, and of extracting from all kinds of rags, all kinds of mineral colours, and rendering them white and completely bleached, &c. The *ingredients* and *process* used, are said to be so cheap and trifling as to render these discoveries highly valuable, particularly to paper makers.

RECIPES.

Blistered Feet.

The following mode of cure was communicated to Captain Cochrane, and which he says he never found to fail:—"It is simply to rub the feet at going to bed, with spirits mixed with tallow dropped from a lighted candle into the palm of the hand. On the following morning no blisters exist: the spirit seemed to possess the healing power, the tallow serving only to keep the skin soft and pliant. The soles of the feet, ancles, and insteps, should be rubbed well; and even where no blisters exist, the application may be usefully made as a preventive. Salt and water is a good substitute—and while on this head, I would recommend foot travellers never to wear right and left shoes, it is bad economy, and indeed serves to cramp the feet; and such I felt to be the case."

Artificial Cold.

Several methods of producing artificial cold are generally known; but the following, by the mixture of metals, is conceived to be a novel result. It is stated in the *Annales de Chimie*, that M. Dobereiner dissolved 207 grains of lead, 118 of tin, and 284 of bismuth in 1,617 grains of mercury, at a temperature of 60 deg. 5 min. of Fahrenheit. The mixture immediately fell to 14 deg. Fahrenheit.

Improved Seidlitz Powders.

Take of sulphate of magnesia, in fine powder, dr. ij.; bicarbonate of soda, scr. ij.; mix carefully, and mark it powder No. 1. Tartaric acid in fine powder, gr. xl.; mark it powder No. 2. Mix in water in the usual way, and take during effervescence.

THE FARMER.

Baltimore, Friday, February 20, 1829.

☞ Properties of Flour.—Wheat flour consists principally of two substances: the one familiarly known by the term *starch*, (*fecula*,) and the other being called *gluten*, the latter being somewhat similar to the *glue* of animals. It is from the gluten that the flour principally derives its highly nutritive properties, the starch affording much less nourishment. Now, as all wheat does not possess a uniform portion of gluten, it becomes a matter of great interest to the consumer to know, by some simple rule, how to ascertain the quantity of gluten contained in the flour he is about to buy. Happily there is an infallible test, and one so simple that every one may use it. Take a little flour in the hand, and make dough of it with cold water. If the dough, after "*working*" it a few minutes, is *tough*, and does not get soft and flabby, it contains a proper quantity of gluten, and is good flour.—The *tougher* the dough, the more gluten it contains, and of course the more nutriment. If the dough be of a dead puttyish consistence, it contains little gluten, and of course little nourishment in proportion to its weight. It is this large quantity of gluten that gives character to what is called "*Howard street flour.*" This flour is worth about ten per cent. more to the bakers of loaf-bread, than wharf flour; because a barrel of it will take full twenty per cent. more water. Hence, if a barrel of wharf flour will make 240 pounds of bread, a barrel of Howard-street will make 265 pounds, besides making the loaf appear much larger than one made from wharf flour. It does not follow from this fact, however, that the consumer of a Howard street loaf gets less nutriment in consequence of buying *more water*, or that Howard street flour enables the baker to sell more water in his bread, and thus to cheat his customers. The Howard street loaf contains much more of real nutriment than one made from wharf flour of equal weight, notwithstanding the greater quantity of water, because of the large quantity of gluten contained in the Howard street flour compared with that of the wharf flour. The quantity of gluten in flour, does not depend so much upon the kind of wheat, as upon the soil on which it grows. Take the same kind of wheat that produces Howard street flour, and sow it in the Genessee country, and it will produce what bakers call *short* flour; i. e. flour with a small comparative portion of gluten. As a barrel of common superfine flour contains, say 40 pounds of gluten, and one of Howard street 45 pounds, it follows, that if the former is worth nine dollars, the latter will be worth ten dollars; or, to reduce it still more nearly to the business and bosoms of our readers, they will obtain twenty-five pounds more of Howard street flour for ten dollars than they will of other flour, (that is, in real nutriment,) supposing the prices of a barrel of each to be equal. We have used the terms "Howard street" and "wharf," merely to distinguish the highly glutinous or *strong*, and the *short* kinds. Excellent flour is often found among what is called wharf flour, but generally the Howard street is what we have endeavoured to describe it to be—the most *glutinous*, and consequently the most nutritive and profitable, both for bakers and consumers of bread.

☞ Baltimore Market.—There has been during the week a partial decline in the prices of flour; but on Wednesday, a disposition to rally again was evinced; on that day considerable sales of Howard st. were made for exportation and for the eastern markets, at $7.87½ *a* $8.00. The wagon price yesterday morning was $7.75. The greater part of what comes to town, however, is stored, to await better prices, which are confidently looked for by the owners.

There is little or no change in any of the principal northern markets. We shall endeavour in our next to publish a correct list of the prices of produce in those markets.

Latest Foreign News.

Since our last publication there has been an arrival at New York, bringing Paris dates to the 4th of January, and London to the 1st. There was no intelligence of importance. Details of the failure of the house of Remington, Stevenson & Co. of London are given in the papers. Mr. Rowland Stevenson, one of the partners, it appears, had absconded with a large sum belonging to the firm, which caused a suspension of business. The amount of property taken is conjectured to exceed £100,000. The prices of wheat had declined about six cents in the bushel from previous rates.

Massacre at Crete!

A Smyrna article of December 2d, states that the Turks have deluged the island of Crete with the blood of the Christians. The Mahomedans, persuaded that when there shall be no Greeks in the country, there will be no reason for separating it from the Ottoman dominion, have conceived the project of exterminating this race of people and in two days massacred from one thousand to twelve hundred people in the city of Candia alone. Scarce a sufficient number of christians were left to drag the carcases of their countrymen to the sea. That being done, the unhappy wretches who had been spared were assassinated. At Sode, at Spina Louga, at Retimo, all who were not Mahometans, were put to the sword. It is said that this horrible massacre was perpetrated in consequence of a secret order of the Grand Seignor, who has formed the project of extirpating Christianity throughout his Empire.

The same article says, that the Muscovites have now found the vulnerable point of Turkey, in the blockade of Constantinople. Hitherto health and abundance have reigned in the Ottoman army, while the Russian forces have been overtaken with famine and disease; but with the distresses and the want of provisions, produced by the blockade, conflagrations, revolts, and anarchy may be expected to take place in the capital of the Turkish Empire, as the three first months of the year 1829 will prove.

London Markets, Dec. 26.

Cotton Wool.—Market very quiet; few sales, in prices no alteration.

London Corn Exchange, Dec. 29.—We had a very large supply of all descriptions of grain and flour for this morning's market; but, owing to the denseness of the fog, very little business was transacted, although there were many lookers on. The few sales effected were at 2s per quarter under the prices of this day week. Barley, from the magnitude of the arrival, was nearly unsaleable; but some prime samples sold for 41s per quarter.

Wheat, 70 a 86s; Rye, 38 a 40s; Barley, 33 a 41s; Flour, 70 a 75s.

Importations last week.—Wheat (English) 2595 qrs; Barley 7338 qrs; Wheat (Foreign) 43,897 qrs; Barley 3541 qrs; Flour (English) 15,063 sacks; American 1694 bbls.

Dec. 30.—Indigo, there are no transactions. The unfavourable accounts respecting the crop in Bengal are confirmed by letters to the 3d of October. No one estimate is to exceed 80,000 maunds.

Corn.—A large number of importations, especially from foreign places. There are buyers, yet few sales are made, and there is a decline of 2s. The market is, however, considered as in a good state.

Liverpool, Dec. 28.—The Cotton market was very dull the beginning of this week, but yesterday the market was animated, and extensive transactions took place in Brazils and the lower qualities of American, but without any improvement in prices. Import of the week, 8387 bales.

French Markets.—Sales at Havre, from the 15th to the 31st Dec. 1828. Cotton 6074 bales, viz, 3858 Georgia and Carolina, 82 a 92½; 231 Virginia, 85 to 73; 194 Mobile, 89 a 96; 873 Louisiana, 88 a 111; 17 Sea Islands 1,90 a 97½, and 901 other sorts. Pearl Ashes 150 bbls. 50 a 51, 50; Rice, 195 tierces 50 a f. 26; 60 a f. 33; 60 a f. 34; 25 a f. 34 50c.

Imports from the 15th to the 31st December.—Cotton bales 7153 U. S; do. do. 214 other sorts; Potashes bbls: 290 New York; Pearl ashes do. 450 do; Rice, tierces 442 Carolina

Sales at Havre January 3d, 148 bales Va. Cotton at 88; 25 do Mobile, 88.

Extract of a letter from Havre, dated January 1.

"We have had an arrival lately from your side, of about 1500 bls. of flour, which is held at 45 a 49 francs per bl. Some days ago we sold a few hundred bls. Richmond mills, at francs 48 50. It is not improbable but that our rates will continue much the same, for some months to come, and we therefore do not think $6 a 7 per bl. too much to operate on. We quote wheat, Pomeranian, francs 26 to 29; Spanish, f. 30; Danish, 25 to 27. per hect. of 75 lbs. English: Our cotton market is dull and little doing."

Jan. 3—120 tierces Rice, received by the Mississippi, has just been sold at 29f. 50, which establishes a considerable fall.

The Havre price current of the 5th, states the arrivals of cotton during the week at 5161 bales, and sales at 1378 of all kinds, of which there were 12 bales Sea Island, at 195; 487 Louisiana, 93 to 105; 614 Georgia, 84,50 to 92,50; 148 Virginia, and 26 Mobile 88. The market was dull, and owing to the want of demand for manufactures, buyers did not purchase with alacrity.

Letters of the 6th of January state that the market, was very dull, by reason of the holidays, &c. and that prices remained without any material alteration.

MARYLAND ECLIPSE.

A desire having been expressed, that Maryland Eclipse, should make a stand in the vicinity of Baltimore the ensuing spring, it is proposed that he should do so, provided sufficient encouragement can be given him. To enable gentlemen, who desire the stock of this horse, to judge for themselves, it is contemplated to exhibit him on the Monument square, on the 10th day of March next, at 12 o'clock. He will afterwards remain at the stable of *Mr. Landis*, for several days, to give persons an opportunity of examining him, who may not have seen him on the day of exhibition. He will stand at $20 the season, and $30 insurance.

Maryland Eclipse, is a dark chestnut sorrel, five years old next June, near sixteen hands high. He was gotten by American Eclipse, formerly the property of Mr. Vanrantz of New York. His dam, the Lady of the Lake, grand dam, Maid of the Oaks. The Lady of the Lake, was sired by Mr. Badger's horse Hickory: Hickory by the imported horse Whip: Hickory's dam was Dido, by the imported horse Dare Devil: The Maid of the Oaks was sired by Spread Eagle, her grand dam by the imported horse Shark. American Eclipse, was sired by Durock: Durock by Diomed. The dam of American Eclipse, was the Millers damsel: she by Messenger, grand dam, by the English mare Pot 8'o's. It will be seen upon a further examination of the pedigree of this horse, that he is descended from the most approved stock of the American and English racers. He is perfectly sound, and in the estimation of competent judges, for fine appearance, great strength, and muscular power, will compare with any colt in the United States.

SAMUEL BRISCOE, Agent.

IMPROVED DURHAM SHORT HORN CATTLE.

The subscriber offers for sale extremely low, several very fine Improved Short Horn Cattle, among which are two very superior young bulls. If required, they can be delivered in Philadelphia. Pedigrees, and particulars as to age, weight, price &c. may be obtained by addressing the subscriber at Hartsville, Bucks County, Pennsylvania. JAMES COX.

CLOVER AND ORCHARD GRASS SEED,

Of very superior quality, just received and for sale by, EDWARD J. WILLSON & CO.
No. 4, Bowley's Wharf.

HORTICULTURAL.

The Subscriber wishes to notify the Public, that he has become the Agent for the sale of the celebrated Garden Seeds of Messrs. D. & C. Landreth, Philadelphia. The high reputation in which these seeds are held throughout the Union, is sufficient recommendation without further notice. But, he will observe, for the information of such as may be unacquainted with the fact, that (with a very trifling exception) all seeds sold by them are grown under their immediate superintendence,—each package bearing their warranty—and for the good quality of its contents, they hold themselves personally responsible. The Seeds will be sold by the subscriber at the growers' prices; and purchasers will be supplied, in every respect, on as good terms as though they dealt at the Philadelphia Establishment.

☞ Orders will also be received by him for Fruit Trees and Green House and Hardy Ornamental Plants

Catalogues of the whole may be had (in a few days) *gratis*, by applying to the subscriber.

JONATHAN S. EASTMAN,
No. 36 Pratt street, Baltimore.

Who has on hand, a general assortment of Ploughs, and other Agricultural Implements, as usual.

ALMANAC.

1829. FEBRUARY.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 21	6	35	5	25	10	50	8	23
Sunday,........ 22	6	34	5	26	10	52	9	19
Monday........ 23	6	32	5	28	10	56	10	16
Tuesday,...... 24	6	31	5	29	10	58	11	15
Wednesday,.. 25	6	30	5	30	11	0	morn.	
Thursday,..... 26	6	29	5	31	12	2	0	15
Friday,......... 27	6	27	5	33	11	6	1	13

Moon, Last Quarter, 26th, 3 h. 13 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—white wheat family, $9.50 *a* 10.00—super. Howard-st. (sales) 8.00 *a* 8.25; city mills, 7.75 *a* 8.00; Susquehanna 8.00—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.60 *a* 1.70—best white wheat, 1.80 *a* 1.90—ordinary to good, 1.50 *a* 1.70—Corn, old, per bush. .48—new corn, do. .46 *a* .48—Rye, per bush. .50 *a* .55—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.25 *a* 5.00—Timothy, 1.50 *a* 1.75—Orchard Grass 2.25 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—Barley, .55 *a* 60—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed primo Beef, 3.50 *a* 5.00.

Marketing—Apples, pr. bush. 2.50; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½; Geese, .75; Butter, lb. .25 *a* 37½; Eggs, .15; Potatoes, Irish, bush. .50; Chickens, dozen, 3.75 *a* 3.50; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Pork, 5.50 *a* 6.00 cwt.; prime Beef, on hoof 5.50 *a* 6.00.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

AGRICULTURE AS INFLUENCED BY PHYSICAL CIRCUMSTANCES.

The physical circumstances which principally affect agriculture are temperature and light, elevation, moisture, and soil.

Temperature and light have the most powerful influence on the culture both of plants and animals. Elevation, when not considerable, admits of being rendered subservient to the processes of culture, and to the habits of different plants and animals; moisture may be moderated or increased, soil improved; but temperature and light are in a great measure beyond human control. Hence it is that the plants and animals cultivated by the agricultor, do not altogether depend on his skill or choice, but on his local situation. Not only the maize, rice, and millet, which are such valuable crops in Asia and Africa, cannot be cultivated in the north of Europe, but even within the extent of the British isles, some kinds of grain, pulse, and roots, cannot be grown to such perfection in certain districts as in others. Thus the Angus variety of oat will not come to the same perfection, south of London, that it does north of York; and of different varieties, the Dutch, Polish, and potatoe oat will succeed better in a warm climate, than the Angus, black, or moorland oat, which answers best for cold, moist, and elevated districts. The turnip arrives at a greater size in Lancashire, Berwickshire, and Ayrshire; than it does in Kent, Surrey, or Sussex, even admitting the best possible management in both countries. The pea requires a dry soil and climate, and more heat than the bean, and consequently thrives much better in the south of England, in Kent, and Hampshire, than in Scotland or Ireland. It is certain that the perennial grass thrives best where the temperature and light is moderate throughout the year, as on the sea-coast in various countries, where mildness is obtained from the influence of the sea, and light from the absence of a covering of snow; and also in the south of England; where the snow seldom lies, and where the temperature is moderated, and the nights not so long as they are farther north. It is equally certain that in America and Russia, where the cold is intense during winter, and the plants on the surface of the ground are deprived of light for six or seven months together by a covering of snow, all herbaceous vegetation is destroyed. Contrasted with these facts, may be mentioned as equally well ascertained, that annual plants in general attain a greater size, and a higher degree of perfection, where the winters are long, and the summers hot and light; the reason of which seems to be that the alternate action of heat and cold, rain and ice, meliorates the soil and prepares it better for the nourishment of annuals than it can well be in countries where the soil is not only hardernaturally, (for all countries that have long winters have soft soils,) but more or less occupied by perennial weeds, insects, and vermin. In cold countries the insects are generally of that kind whose eggs go through the process of the larva and chrysalis state under water, and land reptiles are generally rare.

Elevation, when considerable, has an absolute influence on agriculture. The most obvious effect is that of obliging the agriculturist to isolate his dwelling from those of other cultivators or villagers in the plains, and to reside on his farm. This is well exemplified in Switzerland and Norway. We have already noticed the judicious reflections of Bakewell on the subject as referable to the former country, and have also referred to those of Dr. Clarke respecting Norway. The latter author has depicted these alpine farms, both with his elegant pen and able pencil. The sæteries are generally built with fir planks, and covered with birch bark, and turf. The inhabitants chiefly live by the dairy, and seldom see their neighbours or any human being beyond their own fire side, excepting on the Sunday morning when they go to church, and on the Sunday afternoons in summer when they meet to dance, and amuse themselves.

As elevation is known to lessen temperature in regular gradation according to the altitude above the sea, its influence on plants and animals must correspond. Three hundred feet in height are considered nearly equal to half a degree of latitude, and occasion a difference of temperature of nearly twelve degrees of Fahrenheit. Hence it is that the agriculture of the temperate may sometimes be adopted in the torrid zone, and that some of the mountains of Jamaica will produce between their base and summit, almost all the plants of the world. Hence, also, that even in the limited extent of the island of Britain, a given elevation on mountains in Devonshire will be adapted for a different agriculture to the same elevation on the Cheviot, Grampain or Sutherland mountains; and while wheat ripens at six hundred feet above the level of the sea in Cornwall, oats will hardly ripen at that height in the Western isles.

Elevation exposes plants and animals to the powerful operations of wind, and in this respect must influence the disposition of the fields, fences, plantations, and buildings of the agriculturist, as well as the plants and animals cultivated. It has some influence also on the density of the air and the supplies of water, and vapour, and even in these respects must affect the character of the agriculture. In Switzerland and Norway the upper mountain farms are completely above the mere dense strata of clouds, and their occupiers are often for weeks together without getting a view of the plains or valleys below.

That soil must influence the agriculture of a country appears at first sight very obvious; though if climate be favorable, time and art will render the soil fit for any species of culture. Naturally, however, soil has a powerful influence; and the period under ordinary management will be considerable, before strong deep clays on a flat surface, can be rendered equally fit for the turnip or potatoe, with friable loams, or more gravelly or sandy soils.

The influence of moisture on the state of lands, is naturally very considerable, and though draining and irrigation can effectually remove excess or supply deficiency, yet fen lands and chalk hills, such as we find in Huntingdonshire, Surrey, and other counties, will ever have a peculiar character of agriculture; the marsh perennial hay grasses will be the characteristic plants of the former, and saintfoin of the latter.

As the general result of this outline of the influence of physical circumstances on agriculture, we may form a classification of that of any particular country to whichever of the four universal divisions it belongs. We submit the following:—

The agriculture of water-fed lands, including fens, marshes, and marsh meadows.

The agriculture of sun-burnt lands, including chalk, gravel, and sandy hills, where vegetation is annually more or less burned up during two or more of the summer months.

The agriculture of mountains, in which the farmery is placed on the farm, as distinguished from those cases in which the mountain lands or a part of them are appended to lands on the plain.

Common agriculture, or that of the plains, valley, and hills of a country in which all the crops and all the animals suitable to the climate may be profitably cultivated and reared.

He who ploughs his land and breeds cattle, spins gold.

AMERICAN PATENTS

[We propose devoting a portion of our columns monthly, to a description of such improvements and inventions for which patents are obtained, as are in any way interesting to agriculturists. We commence this week with the specifications of the patents of this class obtained in October 1828. We think this will give our agricultural friends information relative to new or improved implements of husbandry, &c. that they can obtain in no other way. It will enable them to judge of the advantages of the invention or improvement, before they buy it, and probably inform them of some of which they would never have heard.]

(From the Franklin Journal.)

Specification of an improvement in Felloes of Wheels for trucks, carts, waggons, coaches, chaises, and all kinds of wheels ordinarily made use of for transporting loads, for pleasure or business. Patented by George Andrews, Tolland, Connecticut, October 24, 1828.

The rims, or felloes, are to be made of cast iron, and may be cast whole, or in pieces or segments.

The rims, or felloes, if cast whole, may be used with or without a band or tire, and must be cast with a mortice, open in one side, to receive the ends of the spokes, with a groove to receive a slide to fasten the spokes into the felloes. The slides are to be made of wrought iron, and fastened to the spokes by a bolt or screw.

The felloes, or rim, to be made with swells where the spokes enter them. The segments are put together and united by a tenon and mortise at the ends, with a small space at the end of the tenon sufficient to receive a bolt to hold the band, or tire.

The felloes should be cast with swells in them, where the ends of the segments meet, and a similar swell where the spokes go into the felloes; those swells are designed to give more strength to the wheel. The shape of the felloes may be varied to any that may be wished.

The peculiar excellence of this kind of felloe is, that it is more durable than wood, not being subject to rot, or decay, by being used or exposed to the weather; and will remain good as new ones, when the spokes and other parts of the carriage which are made of wood, shall be wholly demolished by age and use, and can be easily obtained when suitable timber for felloes cannot, and can be afforded equally as cheap as those made of wood.

George Andrews.

Specification of a mode of making Weeding and other Hoes. Patented by James A. Black, Columbia, South Carolina, Oct. 13, 1828.

An anvil, with a face ten or twelve inches, by twelve or fourteen inches on the face, on which the size of the blade of the hoe is sunk, nearly as deep as the hoe blade is thick, with also the thickness of the eye of the hoe spread out flat, sunk in the same. From the centre of the blade to the middle of the eye as thus spread out, the anvil is still deeper sunk, so as to receive the ridge extending from the centre of the blade to the eye of the hoe when made. On this anvil a tilt or trip hammer works, with a face large enough to cover both blade and eye, as extended or spread out. This hammer is put into motion in the usual way as now practised in forging iron. The hoe is made from a bar of iron about seven-sixteenths thick, and four or four and a half inches wide. The bar is heated and laid on the anvil, the end extending to the edge of the blade, or nearly so, and passing back over the centre of the eye. The action of the hammer forges the iron down into the sunk part of the anvil, until the iron begins to spread over the high part of the face of the anvil, and is made of the proper thickness for a hoe. In this part of the operation, the back part of the blade and the inside of the eye are up next the hammer; the upper side of the blade and outside of the eye next the anvil. The hoe is then trimmed by a pair of shears, such as are used by tin-plate workers, down to the impression made by the sink in the anvil. These shears are worked by a crank on the same shaft that gives motion to the tilt hammer. The hoe is then heated, and the blade part fastened in a vice made for the purpose; one jaw of the vice is flat; the other is formed so as to receive the ridge on the face of the hoe, and the upper part sunk or indented so as to fit the round of the eye. While the iron is at a proper heat, it is turned down to the front, and swedged into the last described jaw of the vice, so that the eye is brought to form a square with the blade. Then the two wings which form the eye, are turned over so as to lap one over the other on the back, or pole of the eye, at which place they are welded at a subsequent heat and operation. What is claimed as new and an improvement in the art of manufacturing weeding and other hoes, by this method, is, forging the blades and eye at the same operation, with a tilt hammer, at which time, one side of the hoe is perfectly flat, the other only varied by the different thicknesses required. From this shape, the hoe is completed by squaring the eye to the front, and turning the wings so as to meet and lap over. There are many operations I use which have been heretofore practised. James A. Black.

Making paper of the *Husks of Indian Corn*—Andrew and Nicholas A. Sprague, Fredonia, Chatauque county, N. York, October 31.

A patent for the same purpose, was granted to Burgess Allison and John Hawkins, Dec. 30, 1802.

We have not examined that patent, and, therefore do not know what difference there may be in the two processes. The specification of the present patentee is in the following words:

"To one hundred and twenty-eight gallons of water, put in ten quarts of good lime, or about six pounds of good alkalies, and place therein about one hundred and ten pounds of clean corn husks, or flag leaves; let the water be moderately heated, over a moderate fire, for two hours, when they will be ready for the engine, there to be worked, and managed in every respect as rags are, for the making of paper."

GUINEA GRASS.

[A writer on Guinea Grass, in a recent communication, signed B., in the Southern Agriculturist, says:]

"I plant the seed early in March, if the weather is mild, upon very strong rich land, in trenches about four inches wide and one deep, and about a foot apart; the seed is well scattered in the trench, and covered light; it will soon be up, and about the first of May you will have an abundance of plants ready to put out.

"The plants are taken from the seed bed as soon as they are five or six inches high, and set out in rows fifteen inches apart, from centre to centre, and a foot apart in the row, if the soil be rich and strong; and nearer, if poor, as it will branch or shoot out in proportion to the strength of your land.

"It should be kept clear of other grass, and the ground occasionally stirred about it until the first cutting, which will be early in June, if the land is good and the season rainy, for it delights in wet weather.

"I cut it about eight inches from the surface of the ground, and when the grass is about two feet high, that is, two feet above the eight inches of stubble, I generally get five cuttings during the season, but have got six and seven.

"As this grass is killed by frost (the *only disadvantage* attending, or that can be named against it,) it is requisite to preserve the seed every year; to do which, experience has taught me that the most certain and less troublesome mode, is to select a spot, after the first cutting, for a seed bed, which must not be touched until just before a frost, when it is dressed up, as herein directed. I will suppose a person wishing to cultivate one acre of grass the next year: I would for that quantity have my seed bed twenty feet square, the grass upon which, by the last of August, will have attained its full height, eight or nine feet, and be fully out in seed, which will continue to put out and drop seed until a frost. About the first of November, I cut the grass upon the seed bed just above the ground, pull up the roots, shake off the dirt carefully, dig the bed about four or five inches deep, rake it quite level and then lay the grass or stubble which was cut from the bed, and which will cover it completely, carefully over the bed, to protect it from frost: in this situation let it remain till the next spring, and when vegetation is pretty well advanced, remove the covering of old grass, and you will find the bed well stocked with young plants, and you will have a succession of plants getting up until late in the spring, according to the depth the seed was turned in when the bed was dressed. If you wish to gather seed to propagate this invaluable grass among those who are too distant to get the plants from the seed bed, I have found the following to be the best method: When the seed is well put out, take a basket at mid-day, when the weather is fine; and gently shake the tops of the stem over the basket, when none but the ripe or mature seed will fall into it; but it is very tedious, as the seed ripens irregularly, and drops immediately as ripe.

"I have never myself made fodder or hay of it, but am perfectly satisfied that it would yield for that purpose more in quantity than any grass now in cultivation; nor do I think the quality would be inferior to the clover or the best grass. Certain it is, that when given in the green state, either to horses or cattle, it is devoured with as much avidity as any grass yet known among us, and although the stem is large it is so tender that not a particle is rejected by even the most delicate and pampered horse. B."

HORTICULTURE.

CULTURE OF SILK.

House of Representatives—January 19, 1829.

Mr. Martindale, from the Committee on Agriculture, to which was referred the petition of Jacob B. Clark, made the following

REPORT:

The Committee on Agriculture, to which was referred the petition of Jacob B. Clark, for the grant of the public land at Greenbush, in the State of New York, to aid him in the rearing of the mulberry tree, preparatory to the culture of silk, report:

That they have maturely considered the subject of the said petition, and have endeavored to ascertain its importance to the nation, in reference to its agriculture. The Committee need not remind the House that the depression and embarrassment of this great primary interest have produced deep and almost universal complaint, and have been the occasion, not less of regret, than of anxious solicitude to provide the means of relief. The depression and embarrassments still continue. While the productive powers of the country have increased with unparalleled rapidity, its foreign and accustomed markets have been as rapidly diminishing. Supply has exceeded demand. The ordinary productions of agriculture have been usually superabundant; but the prices which they have commanded have not repaid to labor and capital their just reward.

It may be useful to illustrate this point by a brief reference to the exportations of bread stuffs of all sorts from the United States for the last ten years. These bread stuffs, it is well known, were, and still are the staple productions of the agriculture of the Northern and middle states, and furnished the medium of their commerce, and the means of the purchase of foreign manufactures. The farmers of these states have been conscious of intense suffering and privation. They have felt their substance dwindling in their possession, and their farms virtually sliding from under them. The causes were remote and invisible, and, perhaps, have not been truly weighed, nor fully appreciated. They cannot be too often reminded of these causes, and pointed to the remedy, until the latter shall be adopted, and the former removed. The following statement shows the annual value of bread stuffs exported from the United States for the last eleven years:

In 1817	$20,374,000	In 1823	$6,268,231
1818	15,550,807	1824	6,894,941
1819	8,259,128	1825	5,500,223
1820	6,620,401	1826	5,540,868
1821	5,184,999	1827	5,808,240
1822	6,627,510		

This table shows a rapid diminution of the exports of this important staple, of about fifteen millions, or three fourths of the whole, in about five years, reducing it to the minimum point, at which it has remained, with little variation ever since. The *cause* of this immense change is the *loss of the foreign market*, not the exhaustion of the fertility of our soil, or the diminished power of the country. On the contrary, that power has grown with its rapidly increasing population. In the last ten years, three millions have probably been added to our numbers, and our powers of production have been proportionably increased. Had the foreign demand continued, our exportation of bread stuffs would have been swollen to the astonishing amount of twenty-six millions, instead of having been reduced to less than six. It would have been impossible to calculate the effects of this change, had not the nation experienced them. Here is a withdrawal of an accustomed market to the amount of twenty millions in the single article of bread stuffs; and, embracing the other ordinary productions of agriculture, it cannot be estimated at less than forty millions. To this amount does the power of the agriculture of the country exceed its productions. To this amount, it may be fairly estimated, it has lost a market it once enjoyed. To this extent have our commercial foreign relations been changed within the last ten years, by the change of the condition and policy of foreign nations producing an immense change in *our condition*, and imperiously demanding a corresponding change in *our policy*. These changes sufficiently account for the embarrassments and depression of agriculture; and their consequences have been extensively and grievously ruinous. The depreciation of the produce of the soil, and the rapid diminution of the quantity, have greatly reduced the value of the soil itself, and sunk to half its former amount this great capital of the nation.

If there be a remedy within the competency of the government, both duty and policy demand its provisions and application. That remedy is most obviously an enlarged demand for the products of agriculture, causing, as a necessary consequence, both an increase of quantity and of price. But this remedy can be applied only by diversifying the pursuits of the farmer, and adapting the fruits of his soil and labor to the consumption of the country, and substituting the domestic productions for the foreign supply. The condition and policy of foreign nations forbid the hope of relief from abroad, and compel us to look, as the last resort to the home market. This consideration together with the uature of the subject referred to the committee, has led them to inquire into the value of this market in the article of silk, and the fitness of the soil and climate of the country to produce it. This inquiry has elicited facts and results which they have thought deeply interesting to the nation, and which they now submit to the consideration of the House.

On referring to the tabular statistical views of Messrs. Watterson and Van Zandt, they have ascertained the value of the silks imported into the United States for the last seven years to be as follows:

In 1821	$4,486,924	1825	$10,261,527
1822	6,840,925	1826	8,104,837
1823	6,715,771	1827	6,545,245
1824	7,203,334		

Amounting, in the aggregate, to the enormous sum of $50,156.566; making an average annual importation of 7,165,223 dollars worth of silk. But, of this amount, was re-exported $12,898,858; leaving for the home market $37,262,780; and showing an average annual consumption of silk of $5,323,244.

But this statement is far from exhibiting to the apprehension of this country the true amount of these importations. This is the amount of the invoice prices; the prices of the goods at the place whence imported; the prices not to sell by, but to pay duties by; the price to the foreign manufacturer, perhaps, but not to the American consumer. The retail market value, which is the price the purchaser pays in labor, in produce, or in dollars and cents, must include, first the duty from twenty to twenty-five per cent; second, the charges and profits of importation, at least ten per cent more; and third, the ordinary retail profit, twenty five per cent on the wholesale cost. This per centage swells the value of the importations of silk, for the last seven years, to the formidable amount of $84,764,205; averaging annually, $12,109.172. By the same standard of value, the value at which they have been sold and purchased the amount actually consumed in the country, for the last seven years, is $62,880,819; showing an annual consumption of $8,982,974. To purchase these silks, would require 8,982,974 bushels of wheat, at a dollar per bushel; to produce them, and manufacture them, would enrich the farmers and manufacturers of the nation, just as much as the production and sale in a foreign market, of so much wheat or cotton. The fitness of the soil and climate of the country to produce this silk, is as valuable as its capacity to produce so much wheat or cotton. The home consumption, which requires so much silk to supply it, furnishes just as valuable a market for the agriculture of the country, as a foreign market for so much wheat or cotton; which is, in fact, more than double the value of the foreign market for all the flour and wheat we export; and the domestic supply of the farmer would not diminish, by one bushel, our export in the latter.

If the value of the raw silk bear the same proportion to the manufacturer as wool (and it is presumed not to be less,) it would be worth, annually $4,-491,487; the subsistence of the manufacturers may be fairly estimated to compose the half of the residue, viz: 2.245.743½ dollars: $6,737,230½, the amount of both, constitutes the annual value of this market to the agriculture of the United States. So much is clearly within the reach of the people of this Union. So much they have it in their power to superadd to their agriculture. This is the value of their own market in the single article of silk; a market which is their absolute unconditional right, which they can easily command, and as easily supply. This market Britain and France deem of the annual value of millions to them; and so it unquestionably is; and it is as valuable to us as to them. Its possession and supply would add so much to the produce and wealth of the nation, and contribute immensely to the relief of its agriculture.

Your Committee feel it their duty to press upon the House, and to present to the nation, every consideration calculated to arrest their attention, and awaken it to a just appreciation of the importance of this object of national industry. Could a permanent market for an additional million of barrels of flour (more than the present annual export of that article) be suddenly opened to the merchants of the United States, with what eagerness would they seek it, and how speedily would they supply it. Should it be unlawfully obstructed, with what importunity would Government be urged to remove the embarrassments! The army and navy of the Union would be put in requisition to defend it from aggression, and its treasure would be freely and liberally expended, to keep clear the channel of so important a branch of its commerce. And this would be national justice and sound policy. It would be in aid of agriculture as well as commerce. But need the American farmer be reminded that a hundred dollars worth of silk is as valuable as the same amount of flour or wheat? And if he can produce this value of silk with vastly less labor, from less space, and with much less risk of accident or failure, with what avidity should he engage in its production. Here is a domestic market for silk, of nearly double the value of all the foreign markets for all his bread stuffs, exposed to no interruption, liable to no accident, constantly increasing with the growth of the nation, and perfectly within his power. He has but to will, and suit his action to his volition, to insure both its possession and supply. One acre of full grown mulberry trees, it is estimated will produce two hundred dollars worth of silk; but it would require ten acres of first rate land to produce the same value of wheat. Neither is there any comparison in the quantity and quality of the labor required. The bone and muscle of the most athletic and robust are indispensable to the production of wheat, while the feeble powers of women and children are competent to the business of producing silk.

The power and capacity of our country to produce silk is unlimited, and need not be measured by its consumption of that article. We may as well export our own silks as foreign; and to a large amount, supply the raw material to the foreign manufacturer. The South may add raw silk to their staples of cotton, rice, and tobacco, for exportation, while the North can meet the consumption of the nation with the manufacture.

The suitableness of the soil and climate of the United States for the culture of silk is indisputable. That matter is set at rest by the fact. It has been cultivated in Virginia and Georgia; and abandoned at the time, not on account of any physical deficiences or difficulties, but the more profitable culture of tobacco first, and cotton afterwards. This culture is profitable no longer; and it is believed that the necessities of the South, as well as the embarrassments of the North, point to a greater diversity of the pursuits of agriculture, as the only practical remedy for both. It is now cultivated, to a very respectable amount in the State of Connecticut. The Committee are enabled to state, on unquestionable authority, that five small towns in that State produced, in one season, nearly two tons and a half of raw silk, worth, at low cash price, $24,188. Of this, the town of Mansfield, containing a population of about two thousand five hundred, produced 2,430 pounds. This silk is converted into the most beautiful sewing silk and some other valuable manufactures, by the skill and industry of that enterprising and ingenious people; and, thus prepared, is worth from seven to eight dollars per pound. This, it is said, greatly exceeds all the other disposable products of the town; and what recommends it still more to the attention of the American people, is the important fact, that this is added to the other ordinary and accustomed productions without diminishing essentially any of them. It employs old men, women and children, incapable of the severer labors of the field. It occupies little or no space useful for other purposes. The mulberry embellishes and beautifies the country, instead of encumbering it; lining the fences and hedges, and serving for ornamental shade trees. The tree diminishes, much less than apple orchards, the productive powers of the soil for other purposes. In a word, the culture of this valuable material is so much positive creation derived from the mysterious operations of an interesting little insect, aided and directed by the cheap care and attention of men.

Another consideration recommends the culture of this precious material still further to the interest and feelings of the American people. It is not sectional. Its culture may be rendered co extensive with the Union, and carried as high, at least as the forty fifth degree of north latitude. The mulberry, at this moment, is growing in a vigorous and thriving condition as far north as Middlebury and Burlington, Vermont; and, it is believed, will flourish wherever the apple tree will grow. It is indigenious to the Southern region; and thrives there more luxuriantly than at the North; and wherever the mulberry will grow, there may the silk worm be reared. All may therefore, participate in the benefits of this culture; and a community of interests and pursuits cannot fail to generate some congenial feelings, and facilitate the restoration of harmony to our political and social relations.

All this, too, may be done without interrupting the ordinary pursuits of agriculture. The feeding of the worm commences with the first opening of the mulberry leaf, and continues for the period of thirty two days, when the worm commences the process of spinning and eats no more. The nursing of the worm, and the winding of the silk, is light in-door work. The gathering of the leaves is the appropriate employment of children; and "one woman can make fifteen pounds of raw silk" worth at least sixty dollars, "in a season of six weeks."

So many and so weighty considerations concur in recommending the culture of silk to the American people, that the committee do not doubt that their sagacity and intelligence, as well as their urgent necessities, will lead them speedily and extensively to its adoption. Under these circumstances, the introduction into the country of the best varieties of the mulberry is a matter of national importance, and, your committee believe, worthy of the fostering care and patronage of the Government. The excellence of the silk depends upon the properties of the mulberry leaf; and these are considerably diversified The white mulberry is decidedly the best, and of this there are various species. The preference among the whole can only be determined by experience and comparison. This knowledge is proposed to be acquired by the petitioner; and your committee are persuaded that it would be cheaply obtained for the nation by the grant of the prayer of the petitioner. Simply the rearing of so many mulberry trees as the committee propose to require on the premises, and for distribution, they think would greatly exceed in value to the nation the land proposed to be granted. A mulberry plantation, on a large scale, would thus be established, and the greatest possible quantity of raw silk, of the best quality, produced. A valuable example would thus be furnished to the public, stimulating competition, and affording the necessary instruction.

A communication from the Secretary of War, in answer to an inquiry addressed to him by order of the committee, which accompanies this report, states the quantity of land owned by the U. States at Greenbush to be 261½ acres which, at the time of the purchase, cost the Government, nine thousand dollars. It was then a valuble farm, fenced and cultivated. The committee are informed, and believe, that the fences are almost wholly demolished, and the farm in other respects, gone to waste. These circumstances, connected with the general depreciation of real estate, have reduced the value of the property to nearly one half the sum paid by the Government. It is not now occupied for military purposes of the nation, and, probably, will never be needed for that use. Your committee are of opinion that there exists no longer any inducement with the Government to delay selling said land, or in some way disposing of it for agricultural purposes. They think that the public interest cannot be better promoted than by appropriating it to the use designated by the petitioner. They have, therefore, submitted the project of a bill, which while it provides for the payment to the Government of a sum equal to the value of the land, is intended to ensure the accomplishment of the other important objects of the grant.

KITCHEN GARDEN—FOR MARCH.

Every thing should now be forwarded relative to the cultivation and preparation of the ground, in finishing all principal dunging, digging, trenching and levelling ridged ground, according as wanted for sowing and planting, which should now be commenced in all the principal kitchen garden esculents for the main crops, particularly the following articles: onions, leeks, carrots, parsnips, red beet, green beet, white beet, spinach, lettuce, cabbage, savoys, cauliflower, brocoli, bore cole, cole-wort, asparagus, beans, peas, kidney-beans, turnips, parsley, celery, turnip-cabbage, turnip-radish; and of sallad, and sweet herbs, cresses, mustard, rape, radish, nasturtium, borage, marigolds, chervil, thyme, savory, marjoram, coriander, corn-sallad, clary, fennel, angelica, dill, and some others.

For successional, and first some early crops, sow in hot beds cucumbers, melons, basil, purslain, capsicum, cauliflower, coriander, guords, and small sallading.

Great care should be taken that their seeds are quite fresh, which is a matter of great importance, and for want of which many are disappointed in their principal crops, when too late to sow again. Likewise to have the best varieties, both of seeds and plants, of the respective kinds, which, in many principal sorts, is also a very material consideration, particularly at this season for sowing and planting the main crops.

When you sow your different crops, let it be in dry weather, and while the ground is fresh dug, or levelled down, or when it will admit of raking freely without clogging

Cauliflower plants that have stood the winter, in frames or borders, should now be planted out, if the weather is mild, in well dug ground, two feet and a half distant, and draw earth to those remaining under the glasses, which still continue over the plants, to forward them, but prop up the glasses about three inches to admit air, &c. Give air likewise to your cucumber and melon plants, by tilting the glasses behind, one, two, or three finger's breadth, in proportion to the heat of the bed and temperature of the weather. Cover the glasses every night with mats, and support the heat, when you find it declining, by lining the sides with hot dung.

Towards the latter end of the month plant potatoes, for a full crop, in lightish good ground, some early kind for a forward crop in summer, and a large portion of the common sorts for the general autumn and winter crops. The most proper sort for planting, is the very large potatoes, which you must cut into several pieces, having one or more eyes to each cutting. Plant them either by dibble, or in deep drills, and sink them about four or five inches in the earth.

Plant your main crop of shalots by off-sets, or the small or full roots, set in beds six inches apart.

Sow a successional and full crop of spinach twice this month, of the round leaf kind, in an open situation; or it may be sown occasionally between rows of beans, cabbages, cauliflowers, horse radish, artichokes, &c.

In this month sow a small or moderate crop of the early Dutch kind of turnips in a free situation. Repeat your sowing at two or three different times, in order to have a regular early succession to draw in May and June.

Be particularly careful to destroy, either by hand or hoe, all the weeds in their early growth, or otherwise they will materially injure the plants.

THE TEA PLANT.

It has been doubted whether there is more than one variety of the tea plant. Dr. Abel is inclined to believe there are two, but that either will yield both the black and green teas, according to the mode of preparation. Dalrymple thinks the principal difference between the black and green is the age of the leaf—the latter being prepared when the leaf is in a less mature state, and while it contains a quantity of viscid, and to a certain degree, narcotic juice, which gives the peculiar character of the hyson teas. Abel remarks, that leaves slowly dried will retain more of the green colour than those that are rapidly dried. The *green* tea is carefully dried by exposure to the open air in the shade, the *black* by artificial heat, in shallow pans, over a charcoal fire. The difference of latitude in which these teas are cultivated will show the difference, we think, of species. The green tea district lies between the 29th and 31st degrees north latitude, and the black tea district between the 27th and 28th degrees north latitude. The green tea met with in India are the *gunpowder*, with a leaf rolled quite round, and the *hyson*, the leaf of which is small, closely curled, and of a bluecish green Of the black teas, the three following are the best: 1st, the *Pouchong*, of a peculiarly delicate flavour, not often met with out of India or China 2d, the common *Souchong;* and 3d, the *Bohea tea,* called in China the *wooe-cha.* Tea is a product of Japan. The Chinese use only the black teas, and prepare the others for exportation. It was first introduced into England during the Commonwealth, and now about 22,000,000 of pounds are annually consumed there; in the rest of Europe more than five millions, and about as much in America. Dr. Clarke says, in his Travels, speaking of the virtues of this plant, that "the exhausted traveller, reduced by continued fever, and worn by incessant toil, experiences in this infusion the most cooling and balsamic virtues; the heat of his blood abates, his spirits revive, his parched skin relaxes, and his strength is renovated."

[*Washington Chronicle.*

(From the Massachusetts Agric. Repository.)

ON THE CULTIVATION OF THE POPPY,

For the purpose of producing Opium.

"Messrs. Cowley and Staines, of Winslow, Buckinghamshire, have cultivated poppies for opium, with such success, as to induce the belief, that this branch of agriculture is of *national importance*, and worthy of support. In the year 1821 they procured 60 lbs. of solid opium, *equal* to the *best Turkey opium*, (quere?) from rather less than four acres and an half of ground. The seed was sown in February, came up in March, and after proper hoeing, setting out, &c. the opium gathering commenced at the latter end of July. The criterion for gathering the opium was, when the poppies, having lost their petals, were covered with a blueish white mould. [With great deference, we should say that the directions would have been more clear, if they had stated the size of the capsules or seed vessels when the gathering began.] They are then scarified, [or scratched with a pin or knife, Ed] and the head left till the juice is coagulated, about two hours, when it is removed, and new incisions made. Opium is produced until the third and fourth incisions, and in some instances till the tenth. Ninety-seven pounds were procured at an expense of (one hundred and forty-five dollars,) and this being dried in the sun, yielded above sixty pounds of opium.—The heads of the poppies were then allowed to dry, and were threshed, and the seeds, it was expected, as they weighed 1300 pounds, would produce seventy one gallons of oil. The oil cake was given to cattle and pigs with great advantage."

REMARKS.

If the cultivation of the poppy for opium can be considered as an object of national importance in Great Britain, it seems to be certain that it must be so here. Our climate is much better adapted to this plant. Sown in May, its capsules are fit to use in July. They are larger and finer than in England. The variety from which the Turkey opium is obtained is the large single white poppy. The capsules are of the size of a large pigeon's egg. When they have obtained their greatest size, the capsule is to be slit with a pin, or sharp penknife; from the wound issues a milky kind of juice which in two hours thickens, and should then be collected and afterwards dried in the sun. In raising it on a great scale, the poppies should be sown in rows or beds, so as to permit the collectors of the opium to pass between them.

We have no expectation that such extensive experiments will be made in our country, but many curious persons may be disposed to raise a quarter of an acre each. The remarks which have been made are the result of personal observation. J. L.

INTERNAL IMPROVEMENT.

Mr. Skinner:

In my last communication on this subject, published in the Farmer of the 23d ult , I endeavoured to show that the relative price of land was the operative cause most influential in driving the surplus population of the Atlantic slope into the Central basin of the United States. It is now becoming more and more evident daily, that the public lands held in common by the states, must become a very serious object of contention, or that some more efficacious plan, to secure mutual benefit, must be de vised and adopted.

In a recent debate in the United States' House of Representatives, as reported in the National Intelligencer, on a resolution offered by Mr. Weems, to appropriate part of the public lands for purposes of education, &c., Mr. Joseph Duncan, of Illinois said: "He hoped that, if any division of those lands was to be made, it would be made with a strict regard to all the states, without distinction, and that such division ought to take place, to benefit posterity as well as the present age, and according to the extent of territory, and not according to the population of each state; for it would be hard to tell *where* the population of this country would be found the greatest a few years hence."[*]

Not from any vain hope of deciding a problem, for the solution of which an unattainable insight into futurity would be requisite, but as the subject is relevant to that on which I have already attempted a discussion, I have constructed the subjoined tables, showing the ratio of increase of the United States aggregately, and individually as states and territories, in the period of thirty years, from 1790 to 1820.

With a view, however, to render the tabular mode of reasoning more forcible, as applied to the statistics of the United States, I have subdivided the whole extent into three sections: first, the north-eastern, from Maryland inclusive; 2d, the southern Atlantic, from Virginia inclusive; and 3d, the entire Central basin.

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[*] Nat. Intel. Jan. 29, 1829, 2d page, 4th column.

No. I.—Table of the Ratio of Increase in a period of thirty years, from 1790 to 1820, inclusive, of the North Eastern States of the United States.

States and Territories.	Population.		Ratio, or the augmentation of each 100 persons in 30 years.	Extent in square miles.	Population to the square mile.
	1790.	1820.			1820.
Maine,	96,540	297,839	307	32,194	9 2-10
New Hampshire,	141,885	244,155	170	8,700	27 7 10
Vermont,	85,539	235,764	275	9,380	20 5-10
Massachusetts,	378,787	523,287	138	7,335	71 3 10
Rhode Island,	68,825	83,059	120	1,200	69 2 10
Connecticut,	237,946	275,248	111¼	5,050	54 5-10
New York,	340,120	1,372,812	400	46,500	29½
New Jersey,	184,139	277,575	150	7,870	27¾
Pennsylvania,	434,373	1,049,458	241½	47,000	22 3-10
Delaware,	59 094	72,749	123	2,100	34 6-10
Maryland,	319,728	407,350	127	10,000	40 7-10
	2,346,976	4,836,297	206	177,329	26 9 10

No II.—Table of a Ratio of Increase in a period of thirty years, from 1790 to 1820, of the South Western Atlantic States of the United States.

States and Territories.	Population.		Ratio, or the augmentation of each 100 persons in 30 years.	Extent in square miles.	Population to the square mile.
	1790.	1820.			1820.
Virginia,	747,610	1,065,366	142	66,000	16 1-7
North Carolina,	393,751	638,897	162	50,000	12 3-4
South Carolina,	240,073	501,154	208	33,000	15 1-5
Georgia,	82,548	340,989	400	61,000	5 6 10
Florida,	5,000?	10,000	200	54,000	0 54-100
	1,468,982	2,556,406		264,000	
Add Dist. Columb	-	33,039		100	
		2,589,445	174 7-10	264,100	9 8-10

No III.—Summary Table of the General Ratio of Increase of the Population of the Atlantic States of the United States. in the period of 30 years from 1790 to 1820.

Sections.	Population.		Ratio, or the augmentation of each 100 persons in 30 years.	Extent in square miles.	Population to the square mile.
	1790.	1820.			1820.
North Eastern,	2,346,976	4,836,297	208	177,329	26 9-10
South Western,	1,468,982	2,589,445	174 7-10	264,100	9 8-10
Aggregate,	3,815,858	7,425,742	193	441,429	16 7-10 nearly

No. IV.—Table of the Ratio of Increase or augmentation on each 100 persons, in a period of 30 years, from 1790 to 1820; of the Central and South Western States and Territories of the United States.

States and Territories.	Population.		Ratio of increase, or the augmentation of each 100 persons in 30 y'rs.	Extent in square miles.	Population to the square mile.
	1790.	1820.			1820.
Kentucky,	73,677	564,317	765	37,680	15
Ohio,	66,791	581,434	2,496	39,000	15
Michigan,		8,896		34,000	26-100 nearly
Illinois,		55,311		58,900	1 nearly
Indiana,		147,198		34,000	4 1-3
Missouri,		66,586		66,000	1 nearly
Tennessee,		422,813		40,000	10½
Arkansas,		14,273		121,000	12-100 nearly
Mississippi,		75,448		45,760	1 65-100
Louisiana,		153,407		48,220	3 nearly
Alabama,		143,000		51,770	2¾
	140,468	2,232,683	1,589	576,330	3 88-100

No. V.—Summary Table of the Ratio of Increase, or augmentation on each 100 persons in the States and Territories of the United States, in the period of thirty years, from 1790 to 1820.

	Population.		Ratio of increase, or the augmentation of each 100 persons in 30 y'rs.	Extent in square miles.	Population to the square mile.
	1790.	1820.			1820.
Atlantic Section,	3,815,858	7,425,742	193	441,429	16 7-10
Central Basin,	140,468	2,232,683	1,589	576,330	3 88-100
	3,956,326	9,658,425	244	1,017,759	9¼ nearly

The preceding tables have been constructed with all the care I am capable of, and are drawn as favourable to the Atlantic states as the data would admit, and yet, what a lesson do they present. In the elements from which the tables were formed, the population of Louisiana and Florida, as it stood in 1790, are taken into the account, and the number of inhabitants then supposed to be resident in those two provinces estimated at 35,000; of whom 5,000 were allowed to Florida and 30,000 to Louisiana. By these means the whole population of what is now the United States is represented at the extremes of the period of thirty years, from 1790 to 1820.

We find that the entire mass of inhabitants augmented in a ratio of 241, very nearly; or, for every 100 persons at the beginning of the period, there were 241 at its termination. If such ratio of increase is continued through a second equal period, there will be nearly 24 millions of people in the United States in 1850. At this epoch, February, 1829, the actual number is within a small fraction of 13 millions. It would not, it is probable, be far from correct to allow ten millions to the Atlantic and three millions to the Central states.

Should the Atlantic states increase on a ratio of 193, they will contain in 1850, within a small fraction of 14 millions, leaving ten millions to the Central basin; but such an allowance is much too favourable to the former great section, and particularly so, as in reality the western part of New York, Pennsylvania, Virginia, and North Carolina are in the latter section. Combining, therefore, all the elements, it is no risk to pronounce, that unless some intermediate change influences emigration, that the preponderance of population in the United States after 1850, will be in the Central basin: and proceeding on that assumption, let us see the relative density.

In regard to surface, with all the protrusions of the Atlantic states westward, and rejecting the widespread regions of Missouri, still, the already organized states and territories of the Central basin, exceed in area the Atlantic section by about one-fourth. Taking the extent in table 5th, and giving 12 millions to each in 1850, the Atlantic section will have a distributive population of 27 to the square mile, and the Central not quite 21, on an equal superfices.

The preceding analysis has been rigidly conducted on mathematical principles; but there are other elements to be drawn from political history, which cannot be rejected in such an investigation. In my former number on this subject, the relative price of land was stated, and shown to be the great cause of removing so large a fraction of the population westward. I have now given the data necessary to establish the proposition, that there was a strong tendency in the United States to a centrepetal augmentation of power. To the people of the Atlantic states, this inevitable revolution must have something not very pleasing in its aspect; but like all other irresistible phenomena, our business is to use every prudent precaution in our power to render the change beneficial to the Union.

In all its parts, even in the north-eastern states, where the existing population is most dense, the United States are only commencing to be peopled. In my View of the United States, including only the really inhabited part, the distributive population is stated at 22 to the square mile; but including the entire superfices embraced by the organized states and territories, we find only 9¼ to the square mile.

Estimating the organized part at one million of square miles in round numbers, and supposing it peopled equal to Massachusetts, would yield a grand total of seventy-one millions three hundred thousand inhabitants; or if equal to the British islands in Europe, one hundred and twenty-five millions two hundred and forty thousand.

According to the estimates in my Geographical Dictionary and View, the population of the United States will exceed seventy-one millions in 1884, and swell to 125,788,914 in 1903. WM. DARBY.

LADIES' DEPARTMENT.

The following beautiful lines are on a monument of Sleeping Children by Chantry.

If cherubs slumber, such is their repose,
So motionless, so beautiful they lie;
While o'er their forms, a soften'd splendor glows,
And round their couch, celestial breezes sigh.

And such the rest of Eve in Eden's bower,
Her white bower beaming in the moon-light ray,
Calm she reclined, as some night-closing flower
To rise more radiant at the break of day.

And such our sleep in happy childhood, ere
Thought, like a giant from the rest, awoke
To bind the bounding heart, and fasten there
His iron fetters and his heavy yoke.

Thus as I gazed on that fair fashion'd child
Breathing the homage of the heart alone;
In dreams of early blessedness beguil'd,
A silent captive at the sleeper's throne;

Young mothers came, confessing with a kiss,
The babe, the image of their first born love;
Or wept for one "more beautiful than this,"
Gone from its cradle to its rest above.

Blithe children stopp'd their laugh; they would not rouse
The gentle baby from its slumber deep;
While lofty eyes, and high unbending brows,
Long'd for the silence of that dreamless sleep.

MY MOTHER'S GRAVE.

A few evenings since I visited a spot of all others, to me, the most calculated to embody melancholy feelings—The Grave of my Mother. Invited by the pleasantness of the evening, I abandoned a circle of gay companions and sauntered, unconscious of the silent solemnity which reigned within the cemetry of death, to his silent abode. The moon was up, and shone with unusual brightness, floating along through the azure air—"She seemed an island of the blest." Never did I gaze upon her yellow face with so deep an interest before.

How often, I thought, in childhood's gay hour have I seen her rise in the same manner. I then was happy, and her light was blessed, as it enabled me to pursue, with greater safety and pleasure, my youthful sports. She was not altered; the same mysterious shades that created wonder in my juvenile mind still remained. Years had not dimmed her splendour, nor decay spread her powers upon her disk. Through the pathless fields of light she pursued her way, the same unwearied orb.

Stainless was the sky she wandered in; her ray was steady and unusually pure, it fell upon the white marble domes around me, with a softened brilliancy superlatively beautiful. The names written on many of these memorials of friendship were legible to the eye; there were many whom I remembered in life—they had moved in splendid circles, and were counted among the wealthy and great—the stamina of life were unfolding to them with bright promises of happiness and continuance of life. But death, unwelcome and unthought of, presented to them the mandate of his power—pleadings were in vain, they were hurried to his chamber, and laid on a mournful silent soil with the humble. But who in such an assemblage as this could be called great? What is there that can survive the impress of death?

Over the relic of my beloved mother no memorial stood; the grass grew in rank luxuriance upon it, and a little flower, which often twines December's arms, peeped from beneath the dark verdure, and wasted its sweetness in the evening air. I could have wished it to have bloomed there forever, so pure did its vestal blossom appear—its lonely situation seemed emblematic of my own—like it, I stood unconnected on this vast theatre of human life—and like it, soon must die. [*Casket.*

SPORTING CLIO.

BLOOD HORSES.

Extract of a letter from a gentleman of Virginia to the Editor.

"I have been truly gratified to see, that the true spirit of raising blooded horses, is not only pervading this state, but has extended itself to many of our sister states in a pre-eminent degree. I am not aware whether it may redound to the advantage or disadvantage of Virginia; it appears to me, to have produced a monstrous and intolerable drain upon our stock. Let me give you an instance. A Mr. Samuel Davenport of Kentucky, has recently visited us, upon an occasion of this sort, and purchased at fair prices some five or six thousand dollars worth of *horses and mares*, and carried them off to the neighbourhood of Lexington and Danville, of that State: among them was the celebrated little race horse *Trumpator*, who in all his hardly contested races has only been beaten by two nags, the celebrated running mares *Ariel* and *Sally Hope*. I have no doubt from his unequalled performances and blood, that he will give rise, although a little under size to some of the finest stock ever raised in that country. *Trumpator* was gotten by the noted rnnning horse Sir Solomon, (he by the imported Tickle Toby,; his dam by the imported horse Whip, out Colonel Homes' imported mare *Trumpetta* by Bedford. Mr. Davenport also purchased of Mr. Wm. R. Johnson, his celebrated race colt Snow-Storm, a first rate racer, and one of our best bred horses. He was only beaten once and that when out of order, by the aforesaid Sally Hope. Snow-Storm was gotten by the famous horse Contention, his dam (the dam of Aratur, Star and others) by the imported horse Sir Harry, grandam by the imported horse Saltram, g. grandam by Wildair, Fallow, Vampier, &c. Snow-Storm is obliged to be a great acquisition to the State he is gone to. He also purchased one of the finest colts ever raised in this state, called Side Hamet, a fine brown, and gotten by the noted horse Virginian, (he by Sir Archie, so well known as the best stallion ever in this country,) his dam was also by Sir Archie, out of the best Arabian mare of the two, sent to Mr. Jefferson, whilst president of the United States, by the Dey of Tunis; and was sold by him for the benefit of the United States, to Mr. Bushrod Washington and John W. Epps & Co. The history of which horses I suppose you have been long since well acquainted with; and given in your most useful paper. I have been thus tedious and particular, because I had expected you would choose to give the full pedigrees; if indeed, you should conclude it, to be a circumstance worthy a place in your paper: it surely goes to prove that great interest is about to pervade Kentucky, which state will be second if not first in their stock ere long.

HAWKING.

It has been long known that Sir John Sebright is one of the most expert men going in the Fancy. He possesses wonderful skill in taming wild animals, and instructing domestic ones. The work is really amusing, and we have read it with pleasure.

The art of reclaiming the hawk is first taught, the process of which is curious; and the following is the most amusing exertion of the skill imparted.

MAGPIE HAWKING.

"Magpies may be flown with eyess slight falcons, and afford excellent sport.

"A down or common, where low trees or thorn-bushes are dispersed at the distance of about 30 to 50 yards apart, is the place best calculated for this diversion.

"When a magpie is seen at a distance, a hawk is immediately to be cast off. The magpie will take refuge in a bush the moment that he sees the falcon, and will remain there until the falconer arrives, with the hawk waiting on in the air. The magpie is to be driven from his retreat, and the hawk, if at a good pitch, will stoop at him as he passes to another bush, from whence he is to be driven in the same way, another hawk having been previously cast off, so that one or the other may always be so situated as to attack him to advantage.

"The second hawk is necessary, for the magpie shifts with great cunning and dexterity to avoid the stoop; and when hard pressed, owing to the bushes being rather far apart, will pass under the bellies of the horses, flutter along a cart rut, and avail himself of every little inequality of the ground in order to escape.

"Four or five assistants, besides the falconer (who should attend solely to his hawks), are required for this sport. They should be well mounted, and provided with whips; for the magpie cannot be driven from a bush by a stick, but the crack of a whip will force him to leave it, even when he is so tired as hardly able to fly. Nothing can be more animating than this sport; it is, in my opinion, far superior to every other kind of hawking. The object of the chase is fully a match for its pursuers—a requisite absolutely necessary to give an interest to any sport of this kind; and it has the advantage of giving full employment to the company, which is not the case in partridge hawking.

"The magpie will always endeavour to make his way to some strong cover; care therefore, must be taken to counteract him, and to drive him to that part of the ground where the bushes are farthest from each other. It is not easy to take a magpie in a hedge. Some of the horsemen must be on each side of it; some must ride behind, and some before; for, unless compelled to rise, by being surrounded on all sides, he will flutter along the hedge, so as to shelter himself from the stoop of the falcon. Many requisites are necessary to afford this sport in perfection—a favourable country, good hawks, and able assistants."

The following is a very remarkable discovery, if founded on fact:—

"Slight falcons take up their abode every year, from October or November, until the spring, upon Westminster Abbey, and upon other churches in the metropolis: this is well known to the London pigeon-fanciers, from the great havoc they make in their flight." [*English paper.*

MISCELLANEOUS.

PRESIDENTIAL ELECTION.

As many of our readers, may wish to preserve the simple official record, of the result of the late election, for future reference, we subjoin the following statement.

CONGRESS—*Feb* 11.

Counting votes for president and vice president.

It being now 12 o'clock, the Speaker announced the special order of the day, which was the opening and counting of the votes for president and vice president of the United States.

Whereupon,

Mr. P. P. Barbour moved that the clerk announce to the senate that the house was ready, on its part, to proceed to that duty.

The motion being agreed to—

The clerk left the house, and seats having been prepared for the senate in the vacant space in front of the clerk's table.

They soon after entered the hall, with the vice president at their head, preceded by the secretary and sergeant-at-arms of the senate, and were received at the door and conducted to their seats by the sergeant-at-arms of the house of representatives, the members being uncovered, and rising in their places.

When the senators had taken the seats assigned them, and the vice president had seated himself at the right hand of the speaker.

The tellers viz: on the part of the senate, Mr: Tazewell, and, on the part of the house, Messrs. P. P. Barbour and Vanrensselaer took their places at the clerk's table.

The vice president then, having before him the packets received, one copy by express, and one through the post office, from the several states, took up those from the state of Maine, and announcing to the senators and representatives that those packets had been certified, by the delegation from Maine, to contain the votes of that state for president and vice president, proceeded to break the seals, and then handed over the packets to the tellers, who opened and read them at length.

The same process was repeated, until all the packets had been opened and read; when,

Mr. Tazewell, retiring to some distance from the chair, read the following report:

No. of Electors appointed in each state.	STATES.	President.		Vice President.		
		Andrew Jackson, of Tennessee.	John Q. Adams, of Massachusetts.	John C. Calhoun, of South Carolina.	Richard Rush, of Pennsylvania.	William Smith, of South Carolina.
9	Maine, ...	1	8	1	6	0
8	New Hampshire, .	0	8	0	8	0
15	Massachusetts, . .	0	15	0	15	0
4	Rhode Island, . .	0	4	0	4	0
8	Connecticut, . . .	0	8	0	8	0
7	Vermont, ...	0	7	0	7	0
36	New York, . . .	20	16	20	16	0
8	New Jersey, . . .	0	8	0	8	0
28	Pennsylvania, . .	28	0	28	0	0
3	Delaware, ...	0	3	0	3	0
11	Maryland, ...	5	6	5	6	0
24	Virginia, ...	24	0	24	0	0
15	North Carolina, . .	15	0	15	0	0
11	South Carolina, . .	11	0	11	0	0
9	Georgia, . , . .	9	0	2	0	7
14	Kentucky, ...	14	0	14	0	0
11	Tennessee, ...	11	0	11	0	0
16	Ohio, ...	16	0	16	0	0
5	Louisiana, ...	5	0	5	0	0
5	Indiana, ...	5	0	5	0	0
3	Mississippi, . . .	3	0	3	0	0
3	Illinois, ...	3	0	3	0	0
5	Alabama, ...	5	0	5	0	0
3	Missouri, ...	3	0	3	0	0
261		178	83	171	83	7

Recapitulation.

For President.

Andrew Jackson, of Tennessee,	178
John Quincy Adams, of Mass.	83
	261

For Vice President.

John C. Calhoun, of S. Carolina,	171
Richard Rush, of Pennsylvania,	83
Wm. Smith, of South Carolina,	7
	261

The result of the election was then again read by the vice president, who, thereupon, said:

I therefore declare, that Andrew Jackson is duly elected president of the United States for four years, from the fourth day of March next, and John C. Calhoun is duly elected vice president for the same period.

The senate then retired.

At the annunciation of the result of the election, a clapping took place in the gallery of the house: whereupon, the Speaker immediately ordered the sergeant-at-arms to clear the gallery.

Before the process of clearing the galleries had been completed,

Mr. Hamilton rose to make a motion to the house; whereupon,

Mr. Storrs said, that he rose to submit whether the house would proceed with any business whatever, until the order of the chair for clearing the galleries was enforced.

The Speaker thereupon repeated the order, and those who lingered were ordered out by the sergeant, and immediately retired.

Mr. Hamilton then moved the following resolution:

Resolved, That a committee be appointed, on the part of the house of representatives of the United States, to notify Andrew Jackson of his election to the office of president of the United States for the ensuing term of four years; and that the speaker of this house cause a similar notice to be given to John C. Calhoun, of his election to the office of vice president of the United States, for the same term.

Mr. P. P. Barbour preferred the appointment of a joint committee of both houses.

A desultory conversation ensued, and precedents were referred to for the election of former presidents. But,

Mr. Taylor having reminded the house that the same committee who had been appointed to designate the mode of proceeding in the counting of the ballots, had also been assigned the duty of pointing out the mode in which the result of the election should be notified to the successful candidates, and had not yet performed the latter part of their duty.

Mr. Hamilton withdrew his motion; and, thereupon,

The house adjourned.

THE FARMER.

Baltimore, Friday, February 27, 1829.

☞ **Blood Horses in the West.**—The spirit of improvement in horses is certainly abroad in the west. One of our correspondents, (see Sporting Olio,) states, that one gentleman has recently visited Virginia and purchased five or six thousand dollars worth of horses and mares, and carried them to the neighbourhood of Lexington and Danville, Kentucky. Another gentleman of extensive information and correct observation, some time since remarked, in a letter to the Editor, that there are more fine bred horses and brood mares in Tennessee at this time, than there are in Virginia, where they have been raising fine bred horses for the turf for the last sixty or seventy years. It is a fact, continues our correspondent last alluded to, that almost every fine bred horse, and particularly all the fine bred colts, as soon as they distinguish themselves on the southern turf, are immediately purchased up by some public spirited individual of the west, and carried off to improve their stock of horses.

☞ **The Winter.**—It seems to be admitted on all hands that the present, so far, has been the most severe winter ever experienced in Baltimore. The month of December was remarkable for its mildness and clear sky. We had little rain, scarcely any snow, and very little frost. Soon after the commencement of January, however, the winter weather set in and has continued, with but very brief and partial intervals of mildness, to the present time. It is believed that more snow has fallen this winter than during the ten previous winters together. But the storm which commenced on Thursday night last and continued till Friday night, was without a parallel in this latitude, both for its extreme coldness, and the quantity of snow that fell. The wind was very high and furious, and the storm, altogether, formed a fair specimen of a winter's day in the northern regions.

The winter has also been uncommonly severe in the north, and in fact in all parts of the country—even a Missouri paper, now before us, complains of its unusual severity. The North River was *sleighable* from the Highlands to Troy, a distance of a hundred miles—a circumstance very uncommon. The immediate effects of this hard winter upon the poor, are most afflicting. At all times unprepared for this inclement season, and depending upon daily labour for daily sustenance and protection from cold, their sufferings in winter are always great.—But this winter, when their usual sources of sustenance are cut off, there being little employment for any of them, their distress is indescribable. It is gratifying, however, to observe, that those in more comfortable circumstances, have contributed freely to the melioration of their condition, by private and public collections, by committees, and in the churches. On Tuesday afternoon the wind changed to the south; on Wednesday we had a considerable fall of rain, and at the close of our paper winter appeared to be breaking up.

It is considered, that the severities of the winter will be amply compensated in the abundance of fruit and crops next summer, which are supposed to be the natural consequences of such a season.

☞ **Great Ox.**—One of the largest animals of the ox kind we ever saw, arrived in this City on Monday last. He was raised by William Lansdale, Esq. of Harford County, Md. and measures from nose to rump, thirteen feet six inches; height six feet six; girth eight feet nine and a half inches; shoulder to dewlap five feet and half an inch. He surpasses the great ox Columbus, in all his dimensions except the girth.

☞ **Baltimore Flour Market.**—Our navigation being still closed, there is but little wharf business doing. Howard street Flour still continues to come in freely, but the most of it is stored; the western country farmers are holding for better prices.

Latest Foreign News.

The Packet ship Birmingham arrived at New York on Friday last, bringing London papers to the 7th and Liverpool to the 8th of January. There was no political news of any importance. The Turks and Russians were making extensive preparations for the next campaign. The prices of Bread-Stuffs had declined a trifle from the rates last quoted.

London Market, January 6.

Tobacco.—The sales of Tobacco since Tuesday last are about 250 hhds. Kentucky at full prices.

Rice.—Carolina Rice fell 2s. last week, several parcels of ord. having sold at 35s, and very good at 37s. By public sale this forenoon 287 brls., 22 half brls. old and ord. Carolina Rice, the mid. quality taken in at 35s. the very ord at 32s 6d.

Liverpool, January 2.

Cloverseed.—The import was 100 tons against 80 in the year preceding; and the stock is estimated at 120 tons—consisting almost exclusively of old and unsaleable German and American.

Rice.—From the United States, 4000 casks have been received, against 5900 in 1827. The reduction in the duty of East India has created an increased consumption of that description, and the low rate at which Carolina, in the husk, can be imported, with the superior condition of it when cleaned here, limits the demand, except for export. The present stock is 700 casks. During the week 60 tierces of Carolina were sold at 17s 6d per cwt. of ordinary quality.

The stock of Flour, as well as the other bread stuffs, is not yet correctly ascertained, but is supposed to be about 12,000 barrels of the former, 7000 quarters of Indian Corn, 95,000 of Wheat, and 75,000 of Oats.

The Corn Market has been dull during the week, and Wheat rather lower; for 700 barrels of N. York Flour, just landed, 40s 9d per barrel was offered and refused.

The average of wheat for the week, is 76s 6d, for the six weeks 74s 5.

Tobacco—The import has been 5983 hhds. against 10,672 the previous year; and the present stock consists of 9200, against 11,900 at the same period of 1827. Prices are 3-4 to 1d per lb. higher for Leaf, and 1d for Stemmed, owing principally to a speculative demand, arising from the deficiency in the crop of 1827, the unfavourable accounts respecting the growth of the past year, and the general diminution of the stocks in Europe.

There has been some speculative demand during the week, and about 500 hhds. of all descriptions taken at the late advance in prices.

Liverpool Corn Exchange, Jan. 6.

At our Corn Exchange this morning, there was a thin attendance of the trade and fair show of samples. New red Irish kiln dried Wheat was held at last Tuesday's currency which was realised in the retail business that occurred—but holders of old and free Foreign were barely able to sell at former prices. Flour heavy sale but not lower—and of Oatmeal the sales were limited at 37s 6d a 38s for best Irish.

P. S. *8th January*, 1829.—The sales of Cotton from the 3d inst. to last evening inclusive, are estimated at 4800 bales. The Market is heavy, with a tendency to some decline in prices. The Corn Market is dull, and holders evince more anxiety to sell. In other articles of produce there is very little doing, but we cannot notice any change in prices.

Liverpool Circular, January 8.

In our Circular of the 2d inst. we gave an account of the Imports and Stocks of Cotton, and we now republish them as follows:—

Account of the Stock of Cotton, held at Liverpool at the close of the years 1826, 1827, and 1828.

	1826.	1627.	1828.
Sea Island,	2,700	5,600	4,460
Do. stained,	400	950	1,420
Uplands,	77,900	137,900	88,780
Alabama, &c.	15,400	64,300	32,260
Orleans,	16,700	21,500	30,670
	113,100	230,250	157,590
Brazil,	58,900	72,400	95,510
West India,	4,400	3,000	5,830
East India,	10,200	14,950	12,220
Egyptian,	51,200	22,100	24,320
	237,800	342,700	295,470

The Stock in all the Ports of the kingdom was, at the close of 1826, 342,200 bags
1827, 452,240
1828, 405,886

The entire Import into the kingdom, in the same period was—

	1826.	1827.	1828.
From the U. States,	394,149	616,616	444,280
Brazil,	55,742	118,815	165,299
India,	61 662	73,541	81 612
West India,	20,035	84,077	25 007
Egypt,	47,195	24,121	31,003
	581,783	894,206	750,231

The consumption of 1828 is estimated to have been 14,000 bags per week, being 1800 bags per week more than the preceding year; and the consumption is believed to have consisted of 9698 bags American, 2674 bags Brazil, 695 bags East India, and 1029 bags Egyptian, West India, &c. This very increased consumption, being upwards of 1300 bags per week more than the preceding year, is evidently owing to the low price of the raw material, and the profit upon this consumption is believed to have been so very small, that almost any advance in Cotton would at once diminish it.

The stock now on hand is so very nearly what had been calculated upon, that no alteration in prices has been occasioned by its being ascertained. The quantity of cotton of the new crop which arrived at the close of the last year, was about twenty thousand bags. The export in 1828 was 63,800 bags, of which about one half was East India, and only 17,300 bags American.

The market is extremely dull, and new Uplands may be bought at 6¼d to 6½d. Considerable arrivals are expected, and the holders in general seem desirous to sell; and from the extremely low prices of Twist, even as compared to Cotton, several spinners, in endeavoring to reduce the wages of their men, have occasioned them to turn out in opposition to the reduction, and thus some small diminution of demand takes place. On the whole there appears to us very little chance of much improvement in Cotton, and that holders in general will be inclined to sell whenever there is a good demand.

Prices Current in New York, Feb. 23.

Bees-wax, yellow .24 a .25. *Cotton*, New Orleans .10 a .12½; Upland .9 a .10½; Alabama .9½ a 11. *Cotton Bagging*, Hemp .20 a .21; Flax .15 a .18. *Flax*, American .6½ a .8. *Flaxseed*, rough, tierce $11.00; clean 12.00. *Flour*, N. York, 8.00 a 8.12½; Canal 8.25 a 8.50; Baltimore wharf, 8.00; Howard street 8.25; Richmond city mills 8.12½; country 8.00; Alexandria and Fredericksburg 7.87½ a 8.00; Petersburg 7.87½ a 8.00. Rye Flour 3.87½ a 4.00; Indian Meal, bbl. 2.88 a 3.00; hhd. 13.00. *Grain*, Wheat, North River ——; Virginia ——; North Carolina ——; Rye .70 a .72; Corn, Northern .54 a .56; Southern .44; Barley .50; Oats .30 a .33; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 7.75 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50 a a 6.00; Butter, N. Y. 14; shipping .8 a .12; Lard .6 a .6½; Pork, mess 12.50; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .8 a .9. *Rice* .3¼ a .3¾; Whiskey, rye .24½ a .25; Cider Brandy .27 a .28. *Tobacco*, Virginia .3½ a .6¼; Kentucky .3¼ a .6½; Ohio .5 a .12½; *Wool*, Merino, American fleece .35 a .40; Pulled, 1st qual. .35 a .40; 2d qual. .25 a .27; 3d qual. .20 a .23; Lambs, 1st qual. .40 a .42.

Prices Current in Philadelphia, Feb. 24.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .9, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .11, Tennessee .9 a .11, Alabama .9 a 11; *Feathers*, Southern .33 a .34, Western .31 a .33; *Flax*, .8 a .8½; *Flour*, superfine 8, fine 7.50, Rye 4, Corn meal, hhds. 14, bls. 2.75; *Flaxseed*, cask 11.25, bushel 1.50; *Grain*, Wheat 1.50 a 1.60, Rye .60 a .70, Corn l. c. white .45 a .47, l. c. yellow .46 a .49, n. c. sound .52 a .54, Oats .25 a .33, Barley, Pa. .45 a .50 Eastern .55 a .58, black eyed Peas .40 a .50; *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western ——; *Hemp*, Kentucky ——; *Lard*, .7 a .8½; *Oil*, linseed .87; *Pork*, mess 13 a 13.50, prime 12, cargo 10 25 a 10.50; *Rice*, 3.50 a 3.75; *Tobacco*, Kentucky 3 a 6¼, Virginia 3½ a 5½; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

GARDEN SEEDS.

The subscriber would inform the public, that he is now opening an extensive assortment of *Fresh Garden Seeds*, from the Messrs. Landreths' Establishment, Philadelphia.

☞ No fears need be apprehended as to mistakes, or of bad quality. JONA. S. EASTMAN.

ALMANAC.

1829. Feb.—March.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 28	6 26	5 34	11 8	2 9
Sunday,........ 1	6 25	5 35	11 10	3 5
Monday........ 2	6 24	5 36	11 12	3 56
Tuesday,...... 3	6 22	5 38	11 16	4 43
Wednesday... 4	6 21	5 39	11 18	5 27
Thursday,..... 5	6 20	5 40	11 20	sets.
Friday,......... 6	6 18	5 42	11 24	7 26

New Moon, 5th, 7 h. 29 m. Mg.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—white wheat family, $9.00 *a* 10.00—super. Howard street, (sales,) 7.75; city mills, 7.50 *a* 7.75; Susquehanna none—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.60 *a* 1.70—best white wheat, 1.80 *a* 1.90—ordinary to good, 1.50 *a* 1.70--Corn, old, per bush. .48—new corn, do. .46 *a* .48—Rye, per bush. .50 *a* .55—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .65 *a* .60—Clover seed, 4.25 *a* 5.00—Timothy, 1.50 *a* 1.75—Orchard Grass 2.25 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—Barley, .55 *a* 60—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, 12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing—Apples, pr. bush. 2.50; Pheasants, pair, 1.00; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½; Geese, .75; Butter, lb. .25 *a* 37½; Eggs, .20; Potatoes, Irish, bush. .50; Chickens, dozen, 3.75 *a* 3.50; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6½ each; Canvass-back Ducks, pair, .75, Pork, 5.50 *a* 6.00 cwt.; prime Beef, on hoof 5.50 *a* 6.00.

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AGRICULTURE.

(From the New York Farmer.)

STEAMING FOOD.

Benefits derived from Steaming Food for Live Stock. Improved Steaming Apparatus.—By the Editor.

Judging from the limited practice of steaming roots and other fodder for domestic animals, we should suppose the farmers of this country were not sensible of the superior nourishment and great economy of food thus prepared. It may perhaps be considered as a general rule, that when any vegetable undergoes a change in preserving it, some additional change is necessary in order to counteract the former; or that artificial food requires artificial preparation. For instance, Indian corn of one or more years old, becomes too hard for the digestive powers of almost any animal, and consequently requires softening.—Another general rule which farmers should ever bear in mind, is that the various organs of animals are adapted to a *state of nature*, and are liable to become deranged or injured in domesticating them. For instance, it is supposed that in a state of nature, the *molares* or grinders in the upper and lower jaws of horses would present surfaces directly opposed to each other to the latest period of the most protracted life; but removed from the moist and tender food of nature to the dry and hard of art, it is found that they have an unnatural wear, producing an oblique inclination inwards, to a degree seriously affecting the condition of old horses.

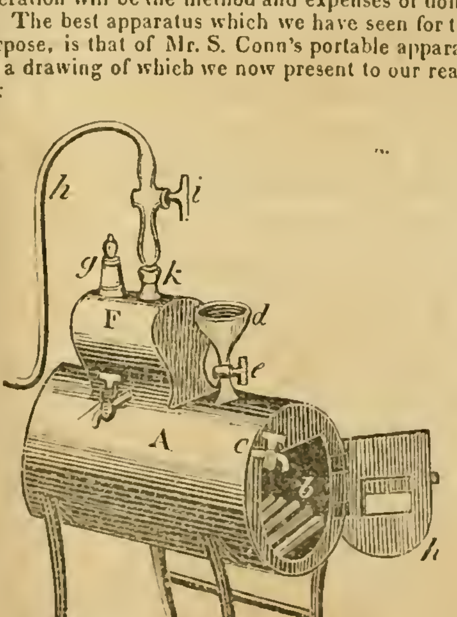
The digestive powers of animals are various.—Bones and ivory will be dissolved in the stomach of dogs before potatoes, parsnips, and other vegetables. On the contrary, the gastric juice of ruminating animals will speedily dissolve vegetables but make no impression on animal substances. The digestive power of the human stomach dissolves both animal and vegetable food.

When unbroken kernels of grain are enclosed in tin perforated tubes or balls, and forced into the stomach of fowls having strong gizzards, such as hens, ducks and geese, they will remain unaffected although the tubes will be bent and bruised. This shows that the dissolvent powers of the grastic juice is ineffective before the food is broken by the mechanical agency of the stomach. Those of less muscular stomachs, such as crows, herons, &c. break with their bills corn and other hard food. If swallowed whole, corn is thrown up or voided unchanged. Man, quadrupeds, fishes and reptiles, possessing thin membranous stomachs, have little or no mechanical power in the stomach, and are consequently dependant on the grastic juice. Hard or unmacerated food entering the stomach is painful to the animal and affords no nourishment.

From the above it will be seen that it is of primary importance to have the food properly prepared before entering the stomach. And it must be apparent to every farmer, that it is more difficult for live stock to macerate dry and hard food than the green and tender grass of the field—and hence the propriety of some artificial means to render the nutriment of winter fodder more available by cattle. Steaming does this more effectually than any other method. The nutritive matter of vegetables is soluble in hot water, and principally consists of five vegetable substances, mucilaginous, saccharine, albuminous, bitter extractive and saline matters. These substances compose those that are dissolved in the stomach; the woody fibre of plants passes off finely broken in the dung.

The advantages of steaming are, economy in food, converting many substances which are now thrown away, into valuable fodder; saving the expense of grinding grain, making the food more palatable and nutritious, and consequently promoting the health and condition of cattle. Among the substances that may very profitably be steamed by farmers are, all kinds of grain, chaff, hay, stalks, straw, cobs, beets, turnips, potatoes and other roots. Hard corn and other grain designed for hogs and old horses, should ever be steamed. Cattle will eat chaff quite readily when fresh from the grain, but when steamed and a little salt dissolved and diffused throughout the mess, it becomes a nourishing and palatable fodder. Hay, particularly old, when treated in the same manner, is greatly benefited. Stalks cut up, steamed, sprinkled with a little bran, and occasionally with salt, become a well relished and ever welcome mess to the cow of sound appetite. Farmers are not all aware of the nutriment contained in the stalks which they suffer to become bleached in their fields by the winter storms. Stalks contain much saccharine matter, the most nourishing of vegetable substances. Straw cut up, mixed and steamed with roots, is an excellent fodder. Cobs contain a great deal of nourishment, and when broken up and steamed, are a valuable feed. Mr. Conn says he has fed a cow for weeks in succession on steamed cobs alone, and found her hair to lie sleek and to exhibit other signs of thrift. From a bushel of corn and cobs ground together, the distillers obtain nearly as much whiskey as from a bushel of corn alone. No vegetable perhaps is more improved by steaming, and more generally useful to the farmer than the potatoe. With chaff or cut straw, they are used as a substitute for hay and grain in feeding horses. Wakefield, of Liverpool, England, fed some of his horses on raw and some on steamed potatoes. He soon found that those on the steamed potatoes looked smooth and sleek, and the others rough and poor. Curwen, of England has placed, by his accurate experiments, the utility and advantage of steamed potatoes beyond all dispute. For hogs and poultry, they are particularly useful. Steaming is far better than boiling potatoes, as it makes them more mealy and nutritive.

And now, after having pointed out some of the benefits of steaming food for cattle, the next consideration will be the method and expenses of doing it. The best apparatus which we have seen for the purpose, is that of Mr. S. Conn's portable apparatus, a drawing of which we now present to our readers:



A is a hollow wooden cylinder of about three feet in length and two feet in diameter; into this is put a metalic furnace or stove, for heating the water, with which it is surrounded. There are tubes (*b*) near the bottom of the stove through which the water in the cylinder freely passes. By this arrangement, very little fuel is necessary to raise the water to a degree for generating steam. F serves as a reservoir for the steam, but it is not indispensable to the apparatus—*g* is a safety valve; *d* a funnel for pouring in the water; e a turn cock; c a cork for ascertaining the height of the water; *b* another for the same purpose; *k* is where the tube *h* is fastened to the reservoir; i is a cock for regulating the steam; *n* is the door of the furnace. By inserting the tube (*h*) into the bottom of a barrel, hogshead or other vessel, containing the vegetables to be steamed, the whole apparatus is complete. The best vessel to contain the vegetables, is a tight and strong box, with a lid on the top, and so constructed that one of the sides may be taken out that the contents may be easily removed. A box 5 feet by 4, and 5 feet deep will contain potatoes enough for 50 cows for 24 hours, and they may be steamed in an hour at an expense of fuel too trifling for consideration.

The apparatus may be used for a variety of purposes in domestic economy, particularly for washing clothes.

AGRICULTURAL MEETING.

At a large and respectable meeting of the *Farmers* of the townships of *Oxford*, *Lower Dublin*, *Byberry*, and *Moreland*, held at the house of *Benjamin Snyder*, in *Bustleton*, agreeably to a notice of the 15th inst.

Jacob Shearer, Esq. was called to the *chair*, and Edmund Green, appointed *secretary*.

The object of the meeting being stated from the Chair, to take into consideration the present prices of Produce and the future prospects of the Agriculturist, and to invite the attention of those concerned to the subject of the increasing and direct interference in our domestic market, by the importation, particularly of Barley, and Potatoes, from *foreign* countries: On motion,

Resolved, That a Committee of seven be appointed, consisting of George Breck, Samuel Swift, John H. Gibbon, T. J. Baird, G. H. Walker, Franklin Comely, and Edmund Green, to draft a Preamble and resolutions, to be submitted to an adjourned meeting, to be held at the house of *B. Snyder*, in Bustleton, on the second Monday in January next, at 1 o'clock, P. M.

Resolved, That the proceedings of this meeting be published.

(Signed) Jacob Shearer, *Chairman*.
E. Green, *Secretary*.

Whereas, At a meeting of agriculturists of the townships of Oxford, Lower Dublin, Byberry, and Moreland, Philadelphia County, convened at Bustleton, on Monday, the 22d of December last, agreeably to public notice, for the purpose of taking into consideration the expediency of exciting farmers generally, in the United States, who may feel interested, to petition Congress for a further protection of Potatoes and Barley of domestic growth, a Committee of seven was appointed, to prepare and draft a preamble and resolutions, to be submitted to an adjourned meeting, to be held at the same place, on Monday, the 12th January. In pursuance of this trust, the said Committee, having met, and taken the subject into consideration, *Report:*

At this moment, when, with one exception, peace pervades the world, and all civilized nations use exertions to foster the industry of their own citizens, we should ill deserve to rank among them, if we disregarded interests so manifestly connected with a prosperous condition of society as those of Agriculture. While all Europe, and portions of the American continent, neglected necessarily the cultivation of the earth, to endure the privations and desolations of war, the agriculturists of the United

States, in consequence of an increased demand for their productions abroad, were enabled to flourish, and gave the means of profitable commerce and industry to the merchant; receiving, in consequence, advantages which at present are withheld.

The condition of the farmer now requires our serious attention. He seldom has an opportunity of speculating. His pursuits are regular, and his profits confessedly moderate. He has, in proportion to other professions and trades, less opportunity of increasing his capital, though as earnestly occupied, and with as great industry and toil as others evince or encounter. He is called upon by the claims of his family, of interest, of ambition and patriotism, to uphold those arrangements best calculated to improve and encourage an occupation of the first importance to his country, himself, his pride, and his hopes; and in considering the vast number of his fellow citizens actually concerned with him in the promotion of such objects, he may fairly defend himself from merely selfish views, and refer the advantages he claims to one general interest.

We perceive many articles capable of employing advantageously the soil and capital of our country, as well as the ability and industry of our population, at lower *rates of duty* than consists with the interest of the farmer at certain seasons, when short crops scarcely recompense him, even with augmented prices, for his labour and expenses; and we desire the aid afforded to other branches of industry, to assist him to attain both skill and capital, which his energy and disposition invite him to arrive at.

The numerous canals and rail-roads, and the general facilities for transportation now adopted, will aid in reducing the price of agricultural produce, bringing into competition various articles from distant parts of the state and our sister states, sufficient to supply the demand in our markets, without reference to foreign countries for productions capable of being immediately and abundantly provided at home; and if protection, by duties upon foreign products, is afforded to any portion of our citizens, we consider the Farmer, personally engaged in the most laborious duties, with high wages to pay, and, in comparison, small farms, fairly entitled to equal consideration.

In consequence of the high price of labour in the agricultural districts of this country, and our mild and economical system of government, the expenses of the labourer, for the supplies of his family, are greater than probably those of any other in the world. He is enabled to purchase abundantly, not only comforts and necessaries produced by the soils of our own land, but to aid the revenue by a large consumption of foreign goods. Thus the high prices given for labour, should aid, ultimately, the agriculturist, who vends at a home market larger supplies of food, and enables the labouring man to enjoy an abundance which is the astonishment of strangers, and we hope will long be our pride.—Let us, as Americans, exult that the consumption, even of the luxuries of life, by the poorest people of our country, exceeds by far, that, where capital and wages are at a much lower rate. We would draw a conclusion, that if the foreign labourer, who, compared with our own, is generally badly paid and poorly fed, is allowed, (for want of sufficient protection by duties in certain seasons,) to compete with our agriculturists, it may reduce our condition more to a level with theirs, and will not assist them.

The demand in this country for every article of consumption continues so regular, from the good wages which labour receives, moderate taxes, and the habits of comfort in which the people constantly indulge, that there is an advance of from 100 to 300 per cent. (from 25 cents to $1,00,) in the value of a bushel of potatoes, according to the scarcity of the crop; and in Barley there is a difference of 150 per cent. per bushel in price, according to the season—which aids the foreigner to introduce, at the present rates of duty, his produce, to our disadvantage, when the crops are deficient. We would more willingly that there should be a reduction of this scale of prices by competition among ourselves, than permit such interference, in certain years, when the farmer particularly needs assistance from those he has supplied, in abundant seasons, at the lowest rates. Therefore,

1. *Resolved*, That to dissipate the possible charge of presumption, from the smallness of the district originating this weighty and national concern, we with all deference allege, that the impulse must come from some quarter, and that we would have been more willing to have followed a larger and more interested portion of our fellow labourers, than to have preceded them.

2. *Resolved*, That, viewing our efforts but as preparatory in effecting the contemplated purpose, we feel little doubt of its accomplishment, if farmers will assist it with that unanimity which is important to produce conviction in the minds of those entrusted with national objects of legislation.

3. *Resolved*, That from the exemplary acquiescence of agriculturists in the constantly increasing duties, imposed for the protection of manufactures and mechanic employments generally, this meeting is emboldened to look for no opposition to their views, but rather a hearty and liberal concurrence.

4. *Resolved*, That as we perceive the subject of the present condition of the agricultural community enlarges much as we consider it, and that it appears to attract an attention which we hoped to excite, that we invite the farmers and graziers of the county of Philadelphia generally, and any others inclined to meet us from other counties, to meet in Germantown, at the house of *John M. Bockus*, on Monday, the 16th day of February next, at 10 o'clock, A. M. to join with us in the free discussion of subjects connected with the interests of our profession.

5. *Resolved*, That a committee of seven, viz: George Breck, John H. Gibbon, Thomas J. Baird, Samuel Swift, G. H. Walker, Edmund Green, and Benjamin Walmsly, be appointed, to give a statement, at a county meeting, of the original purpose and progress of this meeting; and that it be desired to collect any further information which may be acceptable.

6. *Resolved*, That the minutes of this and the preceding meeting be distributed in a circular form, and that we solicit Editors of newspapers, friendly to agriculture, to give publicity to our proceedings.

Jacob Shearer, *Chairman.*

Edmund Green, *Secretary.*

(From the New England Farmer.)

HINTS TO YOUNG FARMERS.

Consider your calling the most elevated, and the most important; but never be above it, nor be afraid of the *frock* and the *apron*.

Put off no business; which ought and can be done to-day, until to-morrow.

As soon as the spring opens and the frost is out of the ground, put your fences in order.

Plant no more ground than you can well manure and cultivate to advantage.

Never hire a man to do a piece of work, which you can do yourself.

Every day has its appropriate duties, attend to them in succession.

Keep no more stock, than you can keep in good order, and that of the best kind.

Never "*run into debt*" without a reasonable probability of solving it at the time agreed.

Remember that *economy* and *industry* are the two great pillars, the *Jachin* and *Boaz*, of the farmer's prosperity.

Should you take the *New England Farmer*, or any other periodical journal, pay for it in advance.

Never carry your notes in your pocket-book, as the desk or trunk is a more appropriate place.—Keep them on file and in order, ready to be found when wanted.

Never buy any thing at an auction because the article is going cheap, unless you have a use for it.

Keep a place for your tools—and your tools in their places.

Instead of spending a rainy day at the dramshop, as many do to their ruin, repair whatever wants mending—post your books.

Should you be fond of the *chase*, or the sport with the *hook*, indulge occasionally, but never to the injury of more important concerns.

By driving your business before you, and not permitting your business to drive you, you will have opportunities to indulge in innocent diversions.

Never trust your money in the hands of that man, who will put his own to hazard.

When interest or a debt become due, pay it at the time, whether your creditor wants it or not.—Never ask him to "*wait till next week*" but pay it. Never insult him by saying, "you do not want it." Punctuality is a key to every man's chest.

By constant temperance, habitual moderate exercise, and unaffected honesty; you will avoid the fees of the Lawyer and the sheriff, gain a good report, and probably add to your present existence, at least, ten years of active life.

When a friend calls to see you, treat him with the utmost complaisance, but if important business calls your attention, politely excuse yourself, and he will excuse you.

Should you think of building a house, be not in a hurry, but first have every material on the spot, and let your cellar be as large as the frame.

Keep a memorandum-book—enter all notes whether received or given—all moneys received or paid out—all expenses—and all circumstances of importance.

In December reckon and settle with all those with whom you have accounts—pay your shop-bills and your mechanics, if not promptly done at the time, which is best of all.

On the first of every January reckon with yourself, and reckon honestly; bring into view all debts and credits—notes and accounts—ascertain to what amount your expenses were the last year, and the loss or gain—make out a fair statement and enter the whole in a book for the purpose.—Having arrived at this important knowledge, you will imitate the prudent traveller, who always keeps in view where he is next to move. You will now look forward, and calculate how and in what way, you shall best meet and prosecute the business of the ensuing seasons.

And lastly, when the frost of winter shall lay an embargo on your operations, and the chilling blasts of Boreas shall storm your castle, let your fireside be a Paradise, and let the long evenings be consumed in social glee, or in the pursuit of useful knowledge.

An Old Farmer.

Mansfield, January 7, 182.

COTTON CORDAGE.

The New York Gazette states that the Southern growers, in order to profit every way, by the use of their own products, have begun to use *Cotton* for bale ropes, leading lines, traces, &c. and several rope makers are now employed in making cordage of the different sizes, for the Southern planters. It is said that during the ensuing year, at least 400 tons of rope will be required, and ultimately the use of hemp for the Southern states will be entirely unknown. This, it will readily be imagined, has grown out of the late tariff.

FARMERS' ACCOUNT BOOKS.

[The Editor knows the small farm, from the books of which the following transcript was made; and if he were at liberty to give the name of the proprietor, its annunciation would at once inspire perfect confidence in the precise accuracy of the statement. To arrive at the *result* on the score of profit and loss, it would be necessary to state the cost of the land and amount of other capital employed and expended, and to take credit, besides the amount of sales as here given, for articles consumed in his own family, which, if not derived from the farm, must have been purchased. The Editor believes that, according to the calculations of his friend, he clears more than six per cent.]

Account of Sales from —— Farm in the Year ——.

	Ice.	Meat.	Milk.	Butter.	Poultry.	Hides.	Vegetables.	Grain.	Provender.	Fruit.	Amount.
January,			19 87½		62½	3 50	2 36	12 75			39 11
February,			15 82½				8 11	14 25			38 18¼
March,			15 90¼		1 12½	1 20	6 44½		13 71¼		38 38¼
April,		6 92¾	13 54¼				7 49				27 96
May,		3 17½	15 99	4 18¾		2 25	11 73½	6 00	2 00		45 33½
June,		2 25	14 70¾	5 00			5 01¼		2 42		29 39
July,	50	13 03¾	15 13¾	3 25			12 49	6 00		18¾	50 60¼
August,	62½	25 67	15 78½	6 12½			4 38	33 50		5 81¼	91 89¾
September,		10 37½	15 11	6 50			4 91¾	34 83¼		1 78¼	73 52
October,		2 00	15 03¼	11 06			11 43¼	32 83¼		3 08	75 43¾
November,			13 17½	8 77¾			6 32¾	18 33¼		3 18¾	49 80¼
December,		10 00	16 52	4 93¾		7 33¾	11 84¼	188 39¾			239 03¼
Here may be added such additional columns, as variety in the products of the farm, may from time to time require.											
	$1 12½	73 43¼	186 60¼	49 83¼	1 75	14 28¾	92 59¼	346 89¾	18 13¼	14 05¼	798 71

Note.—The plan of the account, it will be seen, will answer equally as well for *expenses*, to be classed in like manner under suitable general heads. Of both sales and expenditures, *during each month*, memoranda should be taken in the same form, in the pencil leaves of a common pocket book, whence they may be readily wiped at the end of the month, after the *sums* of them shall have been transferred to the account, and so give place to like memoranda for the ensuing month.

(From the Mobile Register, Feb. 2.)

COTTON.

We have been requested to state that the principal purchasers of Cotton in Mobile, have determined that they will not, after the 1st of February inst. consider cotton as in merchantable condition, that has less than *six hemp* or *flax ropes* to each bale; but that they will require to be deducted from their bills of purchase 12½ cents for each deficiency, and that the same sum will be deducted for ropes that are tarred or plaited. This is said to be in conformity with the practice in other southern markets.

HORTICULTURE.

(From the N. E. Farmer.)

PEAR AND PLUM TREES.

Mr. Fessenden,—You will receive with this communication, an extract from a letter, received last month, from J. Buel, Esq., of Albany, containing an interesting history of the disease in the pear and plum, which he has witnessed in his part of the country. Comparing the date, when it appeared among us, we shall find, it simultaneous in the different states. If this disease springs from a bug or miller, or any other cause, we must leave it to our distinguished entomologist in Milton. This we know, it gives great concern to the reflecting horticulturist, to find his fine trees dying in succession.

As for the loss of our plum trees, and destruction of the fruit, by the curculio, their depredations are now familiar with us; we expect but little even with care. However, I think they are diminishing, and hope the time will soon arrive, when a display of this fruit from our gardens, may compare with that, raised last fall, in the fine gardens of Albany, Troy, and the vicinity. The disease which affects the pear trees, commenced here in 1826-7. S. G. Perkins, Esq., of Brooklyn, lost many trees; some fine and healthy. Mr. Samuel Ward, of Roxbury, from his fine fruit farm, lost between one and two hundred. This same disease destroyed on his place a number of pear trees in 1804-5. My garden has likewise more recently suffered; and, doubtless, others in the vicinity. S. D.

Dorchester, 20th Feb. 1829.

Dear Sir, *Albany, Jan.* 26, 1829.

Your favour of the 16th inst. came duly to hand. In replying to your inquiries, I must premise, that being comparatively a novice in gardening, and many of my trees not having come into a bearing state, I shall not be able to give the ample description you desire.

Schuyler's Gage.—This has not borne with me, though I have eaten it at Mr. Dennison's. I think it is one of our latest plums, under medium size, round, and of a greenish yellow colour. If my recollection serves me, it is sometimes called the white damson.

Royal Blues are the same, I think, as the Fotheringham. I ate this fruit some years ago, at the late Chancellor Livingston's, on the 16th July, under the name of the *Orleans.* It is a pretty large fruit, oblong shape, and blue colour—tree thrifty. Mr. Dennison thinks with me, that it is a Fotheringham, though Loudon describes the Fotheringham as of a dark red colour. A fine plum.

Bleecker's Gage is a fine large yellow plum, raised originally from a pit brought from Germany, and presented to the lady of a clergyman by the name of Bleecker. It is sometimes called the German Gage. When ripe, its flesh appears through the skin varied like the gooseberry. It is one of our most popular fruits. We have some hundreds of natural stocks of this plum.

Bolmar is the same as the Washington—is quite a large plum, oblong, and of a greenish yellow.—Its size has acquired for it a reputation greater than it deserves, though it is a superior plum. It is said to have originated in New York with a Mr. Bolmar. Vigorous tree.

Banker's Gage is an Esopus seedling: and is undoubtedly the best plum I know for drying. I have seen vast quantities dried at Esopus; where they are used in various ways during the winter. They are above the medium size, rather long, blue colour, and remarkably rich and juicy. I have several bearing trees.

I have eaten and admired Mr. D's French plum, but cannot describe it. The truth is, my absence last summer prevented my taking down the description of plums that I intended. My Cais Golden drop, which I received from the London Horticultural Society, has not borne fruit. We have an early Golden drop, which ripens as early as the Mirabolam.

We have added this winter to our collection about a dozen new varieties, all seedlings but one or two. I have seen most of the fruits, and deem them a great acquisition. I forgot the cuttings of my new plum when I sent your trees, but will forward them in the spring.

I first became acquainted with the tumors on the plum tree in 1801, at Kingston (Esopus.) It destroyed thousands of trees in that village. It began to abate in 1809-10, and although it has not entirely disappeared there, it has very sensibly decreased. In 1805, the disease on the limbs of the pear tree made its appearance there, and extended to the apple tree also. Various expedients were adopted to check its progress, such as hanging iron hoops and straps in the crotch, boring holes into the trunks, and filling them with sulphur, mercurial ointment, &c., but to little effect. This disease was worse there than I have ever seen it since, and destroyed four-fifths of the pears and many apples.—It ceased in about 1810, and has now partially reappeared. In 1827, I observed it in various parts of Pennsylvania and New Jersey; and the last summer I noted its progress 100 miles north and 150 west of this city.

The great enemy of the plum, and indeed of all stone fruit, with us, is the curculio, or other insects, which punctures the young fruit. This cannot be the same that causes the tumor; for while my fruit suffers severely the wood remains sound and healthy.

I take the liberty of sending you the constitution, &c. of a Society which we have just formed to promote improvement in horticulture.

Very respectfully,
Your most obedient servant,
S. Downer, Esq. J. BUEL.

(From the Southern Agriculturist.)

DWARF PROLIFIC PEA.

An account and description of Bishop's Early Dwarf Prolific Pea—by Michael Floy.

The letter given below was written at our request, and accompanied some of the peas ordered out by us. An account of their origin is given in the first volume of the Gardeners' Magazine, and from observations made by the conductors of that work, in subsequent numbers, they are in high repute around London. Supposing that they would prove an acquisition here, we have given the annexed letter.—Ed. Sou. Agric.

New York, Dec. 27, 1828.

Sir,—I send you the quantity of Bishop's Early Dwarf Prolific Pea, ordered by you, being of the same kind as presented by me to the Horticultural Society of this city. Agreeably to your request, I will give you a short account of its origin, peculiar properties, and mode of treatment. In the year 1826, they made their first appearance in London, having been sent, as I am informed, from some part of Scotland, where they were originally raised by a practical gardener, of the name of Bishop. In the year 1817, so great a reputation had they obtained in the neighbourhood of London, that they were readily sold by the nursery men there at *a guinea a pint;* and in the spring of that year I received a small portion of them as a present from an eminent horticulturist, who, in the letter accompanying them writes as follows: "These peas are making a great noise here, and knowing they would be highly acceptable to you, I have, with some difficulty, procured you a small quantity. Its peculiar excellences appear to be these: its great productiveness, equalling, if not surpassing any variety hitherto known; its earliness and its remarkable dwarf habit, seldom attaining, even in the best soils, the height of twelve inches, which of itself would make it a most valuable acquisition, more especially for small gardens." In addition to what is here stated, I remark from my own experience, that this pea fully realizes the description here given, and the following appears the most judicious method of treating them: They should be planted three, or at any rate two inches apart in the rows, as from their dwarfishness and spreading habit they do not do so well if sown closer; hence it is obvious there will be a great saving of seed, as a pint of these Peas will go as far as two or three quarts of any other, sown in the usual manner. They commence blooming when not three inches high, bear most abundantly, and are very fine eating. If a few were planted weekly, a constant succession of Green Peas might be obtained all the summer and autumn, as from the habit of their growth they appear better calculated to withstand the heat of an American summer than any variety with which I am acquainted. I have still a few quarts left; which are offered to those desirous of cultivating an excellent vegetable, at one dollar per quart. Persons at a distance, by remitting the cash by letter (post paid) will receive them by any conveyance they may designate. Michael Floy.

Seedsman, &c. New York.

RURAL ECONOMY.

BEES.

The following account of a new method of taking the honey of bees, without the cruel and wasteful process of killing them, is copied from a London paper. The time most suitable for this process is not mentioned. We presume it is so early in the season as to leave them time to prepare a sufficient stock of food for winter.

"The cruel system of smothering bees may now be dispensed with, by a plan recently adopted with complete success: it is called "driving," and is easily accomplished thus: At dark, place a metal pot where the old hive stands; have a new hive prepared with cross sticks, and cream and sugar smeared inside; invert the old hive into the pot quickly; place the new one over it; tie a cloth around the meeting of the hives, so as to prevent any of the bees escaping; then keep stirring the bottom of the metal pot, with an iron instrument, and in less than ten minutes all the bees will be driven by the sound from the old to the new hive; then untie the cloth and lift the new hive to the place where the old one stood, at the same time quickly covering the honey hive with a white cloth, to prevent any of the bees returning to it. In the morning lift a corner of the cloth so as to make a small aperture to let out any of the bees that should remain, and by striking the pot as before, they will depart and join their companions in the new settlement It may be necessary to feed the bees for a few days with sugar, and they will proceed to work immediately after."

HAWTHORNS.

Newburgh, Feb. 17, 1829.

Messrs. Grant Thorburn & Son:

Gentlemen,—I perceive by your advertisement in the last number of the "New-York Farmer," that you have imported 75,000 hawthorns for "live fencing;" and I cannot deny myself the pleasure of communicating to you, the experiment that I have made with this beautiful, cheap and valuable fence. About seven years ago I purchased a few thousand from you, and sat them out, forming a line of fence of about forty rods. The soil on which they were planted was a mixture of clay and white sand, unfavourable to their rapid growth. They have never been cultivated, except to trim them the last season—every plant flourished, and they now form a fence sufficient to turn any cattle, and the cheapest, handsomest, best fence upon my farm.

I have saved a bushel of the berries, and intend to have a nursery of hawthorns.

If our farmers are fully apprised of the preference, in all respects, due to this kind of fencing, you will find a ready sale for all you have imported, and I venture to assert, that every gentleman, who will make an experiment with them, will be highly gratified with the result.

I remain yours, very respectfully,

Jonathan Fisk.

INTERNAL IMPROVEMENT.

RAIL-ROAD.

Commonwealth of Massachusetts—House of Representatives, Feb. 20, 1829.

The Committee to whom were committed the Resolutions before the House, in respect to the construction of a Rail Road, from Boston to Providence, and from Boston to the Hudson, submit the following

REPORT:

That the House by having almost unanimously passed the first of said Resolutions, by which they declared, that the construction of the said Rail Roads, "would essentially promote the great interests of Agriculture, Commerce, Manufactures and the Arts, throughout the Commonwealth," have, so far as their opinion goes, left nothing to be decided, but the mode of obtaining so desirable an object.—This being the opinion of the House, it must be unquestionable, that it is for the interest of the state, to patronize the enterprise by participating in the execution of the work. At once to acknowledge its value, to shun all hazard, and withhold all aid, is inconsistent, and presents discouragements to private persons, which utterly forbid all hope of the attainment of the object. Besides, the grant of privileges to a private corporation so extensive, as must be required, to induce such a corporation to build the contemplated Roads, would be wholly incompatible with the dignity and interests of the State. Such a measure would be doing violence to public opinion, which in this Commonwealth has been growing stronger and stronger, and has pronounced such exclusive grants, of the great high ways of the State, to be injurious and in the highest degree improvident. These are privileges, to be reserved for the benefit of the whole people, not for the present only, but for all future time.

The question, and the only question that can be made recurs; that is, to what extent, the state shall co-operate with others. In this respect, the Committee forbear to express their views. For it is certain, that the community and the House, are divided in opinion. While some conceive, that the projected Roads, should be strictly and solely a state object, others for various reasons, prefer a participation with individuals. In this state of the case, it seems at least, to be expedient, that the Commonwealth should embark to such an extent as not to hazard the loss of the object altogether.

In reference to a contemplated Corporation between the State and the City of Boston, or its citizens, incontrovertible principles should be settled in the minds of our fellow citizens. If the projected Rail Roads should prove beneficial to Boston, they must become so, by proving first beneficial to the country. Great cities situated like Boston, can only rise into importance upon the industry, the population, and the wealth of the country. It is readily admitted however, that Boston would be eminently, and greatly more benefitted by these Roads, than many other parts of the state. Of this truth, many of its most responsible citizens, have shown their conviction, by having within a few days, presented a petition to the House, requesting that they might be admitted to an union with the Commonwealth, in constructing two third parts of the Rail Roads.

In reference to the geographical situation of our State, and the various interests in it, it is certain, that if internal communications give vigour to the industry and increase the population of the interior, so also must they enlarge the consumption, of all that proceeds from the *sea-board;* thus extending its commerce and navigation. Though in this way, in some cases, business may be diverted, it is increased, not diminished. The fisheries of this State are a great and growing interest. A cheap transportation of their products, through a line of two hundred miles of interior country, with the greater part of which, there is no water communication cannot but greatly increase the consumption; and more especially, when in three months of the year, the article can be conveyed to the doors of the consumer, in that state, in which it is to him the most desirable luxury.

As to the interior parts of the State not upon the route of the projected Rail Roads; it must be evident to the most superficial observation, that if the Rail Road improvement is, what public opinion has pronounced it to be, they cannot fail at no remote period, to participate in its advantages.

If there be a portion of the *Agricultural* interest, on the sea board, and in the neighbourhood of Boston, which is opposed to this improvement, as one likely to prove injurious; it is obvious, that the same objection would lie, to the best water communication, or Turnpike Road, through the same country. Such an objection would be fatal to all improvement; and therefore cannot, consistently with a just and generous regard for the Interests of the whole people, be urged. Besides, it proceeds upon false principles, and is not warranted by facts, in this, or any other country.

With these facts, and views before us, the state of the case is this. There is unquestionably, a portion of the community, embracing many prudent, judicious, and patriotic individuals, who are decidedly of opinion, that Internal Improvements by Rail Roads, are to be of incalculable value to the State. Their opinions may be questioned, but cannot be disproved. Some are less sanguine; others may hold opposite sentiments. On which soever side the truth lies, the Committee decidedly believe, that the time has arrived, when public sentiment demands, that an experiment be made, and that there would be no ground for any further procrastination, were it not, that the Report of the Board of Directors, has been before the people so short a time, as not to have presented them with an opportunity, of thoroughly examining its merits. Nothing, but a just respect for our constituent, could justify any further delay, in coming at once to a final decision. Under these circumstances, the Committee recommend the passage of the following Resolutions.

All which is respectfully submitted,
By order,
T. SEDGWICK, *Chairman.*

Resolved, That it is expedient for the State, to aid and encourage by its funds the construction of a Rail Road, from Boston to the Hudson, and from Boston to Providence, as works, which will greatly promote the interests of this Commonwealth.

Resolved, That the most ample opportunity should be given to the people, to examine the facts and considerations spread before them, in the Report of the Board of Directors of Internal Improvements, and therefore as that Report has been but recently submitted to the Legislature, a final decision upon the subject, ought to be postponed to the next June session of the Legislature.

Resolved, However, as the sense of this House, that taking into view the various expensive surveys and examinations which have been made, the public time that has been consumed in protracted discussions; that the period has arrived, when both the dignity and interest of the state require, that the people should be called upon to make up their opinions definitively, so that their Representatives may at that session finally dispose of the subject.

[These resolutions have been passed.]

LADIES' DEPARTMENT.

JOY AND GRIEF.

One summer morn, when dewy flowers
Displayed their fairest smile,
Young joy forsook his happy bowers,
To frolic forth awhile;
He hied him to a silver stream,
That rippled down the glade,
And there along its verdant brim,
His thoughtless gambols play'd.

High o'er his head the willow flung
Its gold stems to the air,
While many a cheerful warbler sung
His jocund matin there;
He laugh'd to list the bee's soft hum,
Far from the haunts of men,
And the wild partridge's distant drum
Swell echoing through the glen.

And oft his airy form he threw
Sheer in the dancing tide,
To pluck wild water-flowers that grew
Among the streamlet's side;
Soon on his fair unclouded brow
A lovely wreath appears,
Pure as the pearls of winter's snow,
And wet with night's own tears.

Thus play'd he many a jocund hour,
With bosom glad and free,
Till tired he sought a neighb'ring bower,
And slumber'd peacefully;
Deep from her cypress circled cell,
Grief spied the form of Joy,
And softly stealing down the dell,
Knelt by the sleeping boy.

Aside she flung his locks of gold,
And gazed with deep'ning sigh,
Till from her cheek a tear-drop roll'd,
And dew'd his half-closed eye;
He woke and sought with ready hand,
To wipe the tear away,
But ah! no pow'r at his command,
Could dry that cank'ring spray.

Pensive he left the sweet recess,
And his bright home regain'd
Where still 'mid all his gladsomeness,
That hapless guest remain'd:—
And thus whene'er his form we seek,
In scenes beneath the sky,
We find a smile upon his cheek,
A tear-drop in his eye.

WOMAN'S ELOQUENCE.

Woman cannot plead at the bar, or preach in the pulpit, or thunder in the senate house. Yet her's is no trifling eloquence. Its power, though unostentatious in display, is mighty in result. In the retirement of her own family, in the circle of her friends and acquaintances, in the various intercourse of society what a charm can woman spread around her, what a zest to every other enjoyment can she impart—what encouragement can she give to virtue, and what reproofs to vice; what aid can she afford to the cause of religion; in short, what an amount of good can she accomplish, and what an immense influence exert, by her mere conversation. Is it not, then, of vast importance that her powers of conversation should be cultivated as a part of the course of her education, and not left, as they too often are, to take their whole character from the adventitious circumstances of life in which she may be placed? But you will inquire how is this to be made matter of instruction; must it not be the result, and the result only, of a young lady's intercourse with polished and intelligent society? I think not. I would allow to such intercourse all the efficacy which it deserves, and doubtless this efficacy is great. But I would go deeper than this; I would go farther back, even to that period of life, when females are not yet considered old enough to mingle in promiscuous society, and especially to bear their part in the conversation of others much their superiors in age and intelligence. I would have the mother, to all the extent of her power, and the instructress, as a part of her course of instruction, devote themselves to this great object. This is the very way too, in which all the knowledge that a young lady is acquiring at school may be made of practical use; for it may all be introduced into conversation, either for the entertainment or instruction of others.

COURTSHIP.

A gentleman feeling a strong partiality for a young lady whose name was *Noyes*, was desirous, without the ceremony of a formal courtship, to ascertain her sentiments. For this purpose, he said to her one day—with that kind of air and manner which means either jest or earnest, as you choose to take it. "If I were to ask you whether you are under matrimonial engagements to any one, which part of your name [No-yes] might I take for an answer?"

"The first;" said she in the same tone.

"And were I to ask you if you were inclined to form such an engagement, should a person offer who loved you and was not indifferent to yourself; what part of your name might I then take as an answer?"

"The last."

"And if I tell you that I love you, and ask you to form such an engagement with *me;* then what part of your name may I take?"

"Oh then," replied the blushing girl, "take *the whole name:* as in such a case I would *cheerfully resign it for yours.*

When we are young, we enjoy the pleasures of youth, and never think that those pleasures may bring on the mortifications of age.

SPORTING OLIO.

SEA-SHORE SPORT IN NEW JERSEY.

[The following unvarnished account of sporting on the sea coast of New Jersey, will give the city and sunshine sportsman some idea of the zeal of men of "muscle," and of the astonishing fatigue and exposure under which it sustains them, with *benefit to their health.*]

Mr. Skinner: *Salem, N. J., Jan.* 30, 1829.

Sir,—It may not be uninteresting to you to hear what we are about in the way of rural sports. As to foxes, we have caught but few. About ten days past we put up a red in the big meadows below this; he made but one short double, then ran to the Delaware, which having ice aground and thrown up in large masses for one-fourth of a mile out, making a good cover, ran that three miles to a farm house, standing on the beach at high-water mark; ran into the kitchen unobserved by the women and children. The dogs ran in, seized the fox, which alarmed the family; they ran out, and called "Father!" saying that the hounds were killing one another—and, to his and their astonishment, reynard was suspended by one dozen mouths, pulling in every direction. On examination, he had twenty inches of chain, much worn at the end by dragging the ground; and the fox was no doubt a pet one, got away from this house five years ago; his teeth having the ends considerably worn, indicating him to be about six years old.

As I am good for nothing but hunting, and hardly that, being worse than half a hundred years old, and rode more miles on the chase than any other man in New Jersey, I will trouble you to read more of my exercises, all for health, as my father died with the gout before he was of my age. I don't know that I have had half a dozen colds, or a single ache or pain in my life. The last time I was at the sea shore, deer-hunting, we got but one. Accident, or something else, turned every one we got on foot; and bad shooting, together, was the cause of our bad luck. So we determined to change the game, having a friendly invitation from Mr. Humphrey Hewitt, one of the most hospitable gentlemen in the world, (most of Cape May excepted,) living 17 miles down shore, at Hereford Inlet, and 13 from Cape Island, to visit him the next day, and try the geese. Accordingly, six of us arrived at his house in the evening, where he had a good supper and several of his neighbours ready to entertain us for the evening, which lasted until half past eleven, when we went to bed; and at two he routed us, when breakfast was on the table; and by half past two we had six decoy geese bagged, shovels, guns, liquor, &c., and took up the line of march near two miles across the fields and salt marshes to the boats; then rowed down the sound, which was two miles wide and three long, to the inlet; where we put out two men, one shovel, and three of the geese; the geese to be staked near the water's edge, the men to dig a hole in the sand within fifteen paces, one foot deep, and raising a bank one foot above the surface; this is a flat sand, one half mile by one mile, and overflowed at high water. Then one other and myself rowed two miles down the inlet, until we got to the breakers; and here is a heavier surf than I have ever seen at either Cape Island or at Long Branch. Then we went out into the Atlantic ocean, one and a half mile, to a sand bar, which is overflowed at common tides, dug a hole, and buried our skiff at one point of the bar, and staked the three geese on the outer point, and made a blind as above. The sand being wet, pulled off our great coats and laid them in the bottom, but the water soon came through. Then we were ready for action; when, lo and behold, we had neglected to bring out of one of the driver's boats victuals, or brandy, and you will necessarily conclude that it was time for a morning dram, as the day had began to break, and we having worked hard, and none too warm take my word for it, the night being damp, and on the 29th of December. Two others went along the high sand hills or beach, as it is called, about one mile to a slash or fresh water pond occasioned by the rains filtering through the sands, which are perhaps one hundred feet in height, there to wait the arrival of ducks, and had they have had more ammunition would have done well owing to both sounds being well drove; as it was, I thought it very good, they having piled up ninety-six black ducks, had no dog and the fowl constantly circling to light, they only picked up the dead, suffering the crippled to get into the sedge and much other cover around the slash, and quitting at 11 o'clock wet, tired, hungry, and worse than all no liquor, like myself and partner had forgotten the real life and spirit of the cause. Now to the drivers, although a deer hunter's phrase, it is nevertheless a goose and duck hunter's, our Cape May friends foregoing all pleasure to gratify their friends from a distance, divided in two boats, two to a boat and each boat driving its sound and thoroughfares all the ebb tide, until they drove every goose and duck out to sea to come in on the flood in small flocks, a part of old and their young. The sounds are one or two miles apart connected by thoroughfares, and from two to three miles in length and breadth, this was constant rowing and shooting to scare until 12 o'clock, and now I will invite you out into the ocean towards high-water, when our *terra firma* show but two little ridges of sand of twenty feet wide and one hundred long, and that to be covered in one hour, and our skiff on the inner one, and the water three feet deep between us, and a ship could sail around us; at this time there came up a blow from the south east with some snow, and a thick fog obscuring the land, the sea breaking across the inlet and within fifteen feet of our blinds, at this time nothing to be seen but breakers, and it being doubtful whether or not our skiff would live through them; this storm spoiled the principal part of our sport, causing the heavy surf and the strong flood tide sweeping in, prevented scores of flocks which lit in the water, from landing The decoys were very coaxing, both in calling and motions, but the surf and strong tide swept the most of them up the inlet, but few came on shore, we killed that we got five and three ducks, and ought to have killed from ten to twenty, each blind having such good drivers and plenty of fowl; our two first landed got but one flock to come ashore, they let go two barrels each at eight geese thirty five paces and only crippled two which fell out in the bay and lost.

Then we came away, it being two o'clock, arrived at our friend's house by dark, eat a good supper and had many neighbours to spend the evening which lasted until 12 o'clock, the next day friends came fifteen miles on the road to escort us and take another drink which wasted all the day, and left us fifty miles to travel at night, and a much colder one has not been this winter, a hard north wester being dead ahead; without sleeping we got home as the sun was rising in fine spirits and doubtless five years added unto our lives. I have always thought it good to harden myself whilst young and tender, that in case I should live to be old then I should be tough.

With much respect your friend, T. R.

Grand Shooting Match at Game, for One Thousand Guineas.

This interesting and novel match for 1000 Guineas, between the Hon. G. Anson and Mr. Ross, which of them killed the most partridges between sun rise and sun set, and which perhaps excited more interest in the sporting world than any thing of the kind on any former occasion, took place at Milden Hall, Suffolk, on the manor belonging to the Honourable Henry De Roos, on Monday last. It was originally fixed for the previous Saturday; but one of the parties not knowing whether it was to be shot with ordinary shot or with Eley's patent cartridges (no previous arrangement having been made,) was not provided with the latter; and as the birds were very wild, and it was determined to shoot with them, a messenger was dispatched to London for a supply; he returned on Sunday night, and it was then agreed to commence shooting at a quarter past 7 o'clock on Monday morning, and to leave off at a quarter past four o'clock in the afternoon. Many gentlemen, friends of Mr. Rous, came to witness his performance, some from Scotland; and a number of gentlemen, friends of the Hon. G. Anson, were assembled at the Hon. H. De Roos, Milden Hall, for the same purpose. The Hon. H. De Roos, the Hon. C. Greville, the Hon. Col. Russell, Sir John Shelley, Mr. H. Baring, and many other gentlemen and amateurs of the sport were present Many horses were ready to assist the various persons in attendance on the match; each party was allowed three guns, three loaders, &c. that no delay might take place; large sums of money were betted, and both parties came to the post in excellent condition, spirits, and confidence. The morning, at break of day, was unfavourable, it being very foggy, and indeed continuing so the whole of the day. In the first hour, the birds being excessively wild, only four were shot; and those getting up most favourably for Col. Anson, he shot three out of the four. Both parties possessing great pedestrian powers, and thinking to outwalk each other, commenced walking at five miles an hour, and continued that pace for the first two hours, and the remainder of the day at four and a half miles an hour, without halting for five minutes, and the whole of the day bare-headed. The pace kept those who accompanied them in a trot, as long as they could last, which but few, if any, did to the end of the day, without the assistance of a horse. At three o'clock the match was even, both having killed ten brace of birds, and it was even again at four o'clock.

Nothing could now exceed the interest felt by all parties, a quarter of an hour only being all the remaining time for deciding the contest. It was observed about this time that Col. Anson was growing weak,.the parties having walked about thirty-five miles, and a great part of the distance through heavy, wet turnips; but Mr. Ross went on with a gallant stride, to the admiration of all, beating keepers and every other person present. At this juncture Colonel Anson killed another bird, which made him one ahead; but he became so weak that he could no longer follow Mr. Ross, who kept as fresh as ever; and although only ten minutes remained, Col. Anson's friends advised him to propose a draw match, as Mr. Ross would, in all probability, either tie or beat him; which he did, and Mr. Ross very handsomely accepted the proposal. Thus concluded a match with which every lover of the trigger present was highly delighted. The number of birds actually scored was 23½ brace; many others were killed, but it could not be decided by the umpires (Mr. Osbaldeston and others,) to which party they belonged. If the match had taken place in September, it was supposed they would have killed a hundred brace each. The superiority of the patent cartridge over shot, at long distances, was very apparent—most of the birds being killed between fifty and seventy yards. The parties, it is believed, will renew the match for some earlier period in next season, but it is much doubted whether Col. Anson will make it again for the whole day. Mr. Ross offered, at the conclusion of the match, to start immediately, and walk any person present to London, being 70 miles, for 500 guineas.

We ought to state, that according to the terms of the match, Colonel Anson and Mr. Ross were to shoot side by side, so that if the Colonel did not keep pace with Mr. Ross, he must have lost: thus the match assumed the double character of a pedestrian and a shooting match. [*London paper.*

SHOOTING SWANS.

Extract from "A Journey up the Mississippi, by J. J. Audubon, author of the Birds of America."

On the second morning after our arrival, I heard a movement in the Indian camp, and having hastily risen and dressed myself, I discovered that a canoe containing half a dozen squaws and as many hunters, was about to leave the Illinois, for the Tennessee side of the river. I learned also that their object was to proceed to a large lake opposite, to which immense flocks of swans resorted every morning.—These flocks are so numerous and strong, that it is, however incredible it may at first seem, a well known fact, that they keep the lakes which they frequent free from ice, merely by swimming upon them night and day. Having obtained permission to join the party, I seated myself in the canoe, while supplied with ammunition and a bottle of whiskey; in a few moments the paddles were at work, and we swiftly crossed to the opposite shore. I was not much astonished, during our passage, to see all the labor of paddling performed by the squaws; for this feature of Indian manners was not new to me; but I was surprised to see that upon entering the canoe, the hunters laid down, and positively sleep during the whole passage. On landing, the squaws, after securing the boat, proceeded to search for nuts, whilst the gentlemen hunters made the best of their way through the "thick and thin," to the lake.

Those who have never seen any thing of what I call "thick and thin," may perhaps think I allude to something like the furze which cover some of the moors of Scotland—but they must imagine the shores of the Ohio, at its junction with the great muddy river called the Mississippi, to be fairly overgrown with a kind of thick-set cotton-trees, that rise as closely from the muddy soil of the bank as can well be conceived--they are not to be beaten down; you must slide yourself between them—and in summer you have a pretty task to keep off the musquitoes that abound amongst them. After these thickets there are small hasty lagoons, which you must either swim across, jump over, or leap into and be drowned, according to your taste or capability; but when the task of reaching the lake is accomplished—what a feast for a sportsman! There they lie, by hundreds, of a white or rich cream colour—either dipping their black bills in the water, or leaning backwards, and gently resting with one leg expanded, floating along and basking in the sunshine. The moment that these beautiful birds saw our videttes, they started up in immediate apprehension; but the plan of the Indians drove the poor swans the nearer to their fate, the farther they retreated from either shore. Men were placed behind the trees who knew how to take a dead aim, and every shot told. Being divided, three on one side, and four on the other, the former hid themselves, and when the birds flew from the fire of the latter, they alighted within good distance of those who had first alarmed them.

What would those English sportsmen—who, after walking a whole day, and exploding a pound of powder, march home in great glee, holding a partridge by the legs, with a smile on their lips and a very empty stomach—say to this day's devastation among the swans! I saw those beautiful birds floating on the water, their backs downwards, their heads under the surface, and their legs in the air, struggling in the last agonies of life, to the number of 50—their beautiful skins all intended for the ladies of Europe.

The sport was now over--the sun was nearly even with the tops of the trees: a conch was sounded, and after a while the squaws appeared, dragging the canoe, and moving about in quest of the dead game--It was at last all transported to the river's edge, and we were landed on the Illinois bank again before dark. The fires were lighted---each man eat his mess of pecan nuts and bear's fat, and then stretched himself out, with his feet close to the small heap of coal intended for the night. The females then began their work; it was their duty to skin the birds. I observed them for some time, and then retired to rest very well satisfied with the sports of this day—the 25th of December.

MISCELLANEOUS.

COMMERCIAL.

Flour.—The Editors of the New York Journal of Commerce have been favoured by a commercial friend, with a table of the prices of Flour in the Philadelphia market for the period of forty-four years, which, says the Journal, will be a curiosity, as well as a useful document to every dealer in the article. We subjoin the AVERAGE for each year:—

1785	$5 87	1807	$7 17
1786	5 66	1808	5 69
1787	5 25	1809	6 91
1788	4 81	1810	9 37
1789	5 20	1811	9 95
1790	5 56	1812	9 83
1791	5 22	1813	8 92
1792	5 25	1814	8 60
1793	5 90	1815	8 71
1794	6 90	1816	9 78
1795	10 60	1817	11 69
1796	12 50	1818	9 96
1797	8 91	1819	7 11
1798	8 20	1820	4 72
1799	9 66	1821	4 78
1800	9 86	1822	6 58
1801	10 40	1823	6 82
1802	6 90	1824	5 62
1803	6 73	1825	5 10
1804	8 22	1826	4 65
1805	9 70	1827	5 23
1806	7 30	1828	5 60

Aggregate average of 44 years, $7 42.

The circumstances which have produced the principal fluctuations, are given as follows, by the gentleman who has carefully preserved the record. "From 1794 to '96, scarcity in France and England;—from '98 to 1800, export to England;—1800 to 1801, scarcity in England; 1804 and '5 scarcity in Spain; 1808 and '9, long embargo; 1809, to '10 and '11, Peninsula war; 1812, '13 and '14, was with England; 1816 and '17, scarcity in England." To this we may add the cause of advance during the latter part of 1828, viz. scarcity in Europe, particularly in England. The state of the currency in 1814 and '15 of course had an effect on the price of those years.

It deserves to be considered also, that the quantity of circulating medium and the value of all sorts of merchandize have fluctuated. The highest yearly average was that of 1796, viz. $12 50; the lowest that of 1826, viz. $4 65. The lowest price in March 1821, viz. $3 75; and the highest price in March 1796, viz. $15. In one instance the price remained without any change for eleven months, but in very many others it has fluctuated two dollars or two dollars and fifty cents within a few days.

METEOROLOGICAL.

Mr. Skinner,

The following table shows the quantity of Rain fallen for the last three years. Perhaps you may think it worth preserving.

3½ Miles West of Baltimore.

	1826.	1827.	1828.
	Inch. 100ths.	Inch. 100ths.	Inch. 100ths.
January,	1 25	2 80	2 65
February,	2 30	6 00	4 20
March,	2 75	2 18	3 90
April,	2 48	3 30	6 65
May,	1 10	4 15	4 65
June,	8 87	4 80	5 60
July,	2 65	4 90	5 10
August,	2 45	4 80	2 00
September,	6 70	60	5 00
October,	3 80	4 95	1 45
November,	2 90	2 85	7 90
December,	1 10	4 00	0 95
	38 35	45 33	55 00

MECHANISM.

If any thing is capable of persuading man that he is of a superior order of being to that of the animals which surround him, it is above all the beauty of his inventions, and the inexhaustible resources, which he finds in his industry. He is born weak and absolutely naked. His weakness renders him ever active and industrious. Upon a contemplation of his own poverty, he calls into activity all his senses. He applies force to force, opposition to resistance, velocity to weight, and weight to velocity. By the assistance of mechanics, this little being, five or six feet in height, with two arms, can expedite as much work, as a giant whom we might imagine as having a thousand; and not only this, but he can render inanimate bodies, "as it were, alive"—giving mere machines, the very form and motion, and even speech of living men; as witness the wonderful automaton "speaking figures" and "slack rope dancers." Take *mechanics* from man, and you reduce him to a barren thought. Mechanics have done what is most beautiful and magnificent on earth.

[If, in other words he had been born with hoofs instead of flexible thumb and fingers with which all implements are made, how different would have been his destiny and condition.]

The Heavenly Bodies.

The size, and motions, and distances of the heavenly bodies are such as to exceed the power of ordinary imagination, from any comparison with the smaller things we see around us. The earth's diameter is nearly 8000 miles in length; but the sun's is above 880,000 miles, and the bulk of the sun is above 1.300,000 times greater than that of the earth. The planet Jupiter, which looks like a mere speck, from his vast distance, is nearly 1300 times larger than the earth. Our distance from the sun is above 95 millions of miles; but Jupiter is 490 millions, and Saturn 900 millions of miles distant from the sun. The rate at which the earth moves round the sun is 68,000 miles an hour, or 140 times swifter than the motion of a cannon-ball; and the planet Mercury, the nearest to the sun, moves still quicker, nearly 110,000 miles an hour. We, upon the earth's surface, beside being carried round the sun, move round the earth's axis by the rotatory or spinning motion which it has; so that every 24 hours we move in this manner near 14,000 miles, besides moving round the sun above 1,600,000 miles. These motions and distances, however, prodigious as they are, seem as nothing compared to those of the comets, one of which, when farthest from the sun, is 11,200 millions of miles from him; and, when nearest the sun, flies at the amazing rate of 880,000 miles an hour. Sir Isaac Newton calculated its heat at 2000 times that of red-hot iron; and that it would take thousands of years to cool. But the distance of the fixed stars is yet more vast: they have been supposed to be 400,000 times farther from us than we are from the sun, that is 38 millions of millions of miles, so that a cannon-ball would take near nine millions of years to reach one of them, supposing there was nothing to hinder it from pursuing its course thither. As light takes about eight minutes and a quarter to reach us from the sun, it would be above six years in coming from one of those stars; but the calculations of later astronomers prove some stars to be so far distant, that their light must take centuries before it can reach us; so that every particle of light which enters our eyes left the star it comes from three or four hundred years ago:—[From a clever little work, entitled *Objects, Advantages, and Pleasures of Science,* published by the Society for the Diffusion of Knowledge.]

(Items from English papers.)

The price of a good mule in Spain is 10 to 15 oz. of gold, 30 to 45 guineas; and an ass, of the large breed, is worth from 7 to 12 oz. A fine Andalusian charger may, however, be purchased for 8 oz., or 25l.

In some parts of Britanny the expense of living is so moderate, that a person may board and lodge in a respectable family, by whom he will be introduced to the best society, for 800 francs per annum.

Twenty-four pairs of hard polished scissors weighing altogether only *one grain,* have just been manufactured by Mr. Peter Hatherton, of Spring-street, Sheffield. Who would believe, unless they saw them, that *eleven thousand five hundred and twenty* pairs of hard polished scissors could be manufactured completely perfect, the weight of which would only be one ounce?

There is now growing in Gresford church-yard, a yew-tree, which is supposed to be one of the largest in the kingdom. Its circumference, at six inches from the ground, measures 35 feet; and the diametrical shade of its branches is 74 feet.

RECIPES.

To make Cake.

Composition Cake.—One pound of flour, one of sugar, half a pound of butter, seven eggs, half a pint of cream, and a gill of brandy.

Tea Cake.—Three cups of sugar, three eggs, one cup of butter, one cup of milk, two cups of flour, a small lump of pearl ash, and make it not quite as stiff as pound cake.

Clove Cake.—Three pounds of flour, one of butter, one of sugar, three eggs, two spoonfuls of cloves—mix it with molasses.

Sympathetic Ink.

The following applications of a modern chemical discovery affords a sympathetic ink very far superior to any as yet in use. Dissolve a small quantity of starch in a saucer, with soft water, no trace of the writing will appear upon the paper, and the letters can be developed only by a weak solution of iodine in alcohol, when they will appear of a deep purple color, which will not be effaced until after a long exposure to the atmosphere. So permanent are the traces left by the starch, that they cannot (when dry) be effaced by Indian rubber; and in one case a letter which had been carried in the pocket for a fortnight, had the secret character displayed at once by being very slightly moistened with the above mentioned preparation.

To Gild Manuscript Writing.

Dissolve a little gum ammoniac in a small quantity of water, in which a little gum arabic and the juice of garlic have been previously dissolved. Write with this liquid instead of ink, or form characters with it by means of a camel's hair pencil. Let the characters dry, then breathe upon them, and apply leaves of gold to them as for any other kind of gilding. The superfluous gold may be removed by a brush, the writing will then appear covered with gold, and may be burnished.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 6, 1829.

☞ Since our last number, there has been no intelligence from abroad, and nothing materially interesting to our agricultural friends, as such, has transpired "at home." The markets in all the Atlantic ports are at this season extremely dull, and no fixed prices for staple articles can be quoted. In our last we noted the favourable change of weather, which indicated the breaking up of winter. This weather has continued to the present time, and the snow and frost have almost disappeared—a few more days of such weather will "open the ports," and then business will resume its wonted activity and spirit; and *then* we shall be able to give our agricultural friends more certain intelligence, and, we hope, better prices.

As to the Baltimore flour and grain market, as hinted above, nothing definite can be said.—The farmers and millers refuse to sell at what they can get, and holders of store flour are equally firm; neither of them, however, appear to have any established asking price. We heard of offers having been made on Wednesday, of $7.75 for shipment to England, which were declined. The opening of the spring business, and another arrival from England, it is thought, will dissipate all this uncertainty, and lead to the establishment of rates on which more dependence may be placed.

☞ GREAT INCREASE OF POPULATION.—In the 48th number of the Farmer, we incidentally remarked, that Troy, N. Y. contained about 8000 inhabitants. We were then not aware that a census had been recently taken, by which it appears, that the population of that young and flourishing city amounts to 10,840! In 1825 it was 7,879—increase, in little more than three years, 2961. Troy is situated on the east bank of the North River, 6 miles above Albany, at the head of sloop navigation. The great Erie and Champlain canals communicate with Troy by a side cut, and have rendered it a place of extensive business.

Prices Current in Boston, Feb. 27.

Apples, best, bbl. $.3.00 a 3.75. *Beans*, white, bushel .80 a 1.12. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, .8.50 a 9.00; No. 2, 7.50 a 7.75. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 9.00 a 9.12; Genesee, 9.00 a 9.25; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .75 a .80; Barley .70; Oats .30 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.25; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bush. 2.00 a 2.50; Orchard Grass, 3.00; Fowl Meadow, 4 00; Rye Grass 4.00; Tall Meadow Oats Grass 4.00; Red Top 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .8 a .10; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .42; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 *a* .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. .30 a .33.

Prices Current in New York, Feb. 28.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland .8½ a .10; Alabama .9½ a 10¾. *Cotton Bagging*, Hemp .20 a .21; Flax .15 a .18. *Flax*, American .6½ a .8. *Flaxseed*, rough, tierce $11.00; clean 12.00. *Flour*, N. York, 8.00 a 8.12½; Canal 8.25 a 8.37½; Baltimore wharf, 8.00; Howard street 8.25; Richmond city mills 8.00; country 7.87½; Alexandria and Fredericksburg 7.75 a 7.87½; Petersburg 7.75 a 7.87½. Rye Flour 3·87½ a 4.00; Indian Meal, bbl. 2.88 a 3.00; hhd. 15.00. *Grain*, Wheat, North River ——; Virginia 1.69 a 1.70; North Carolina 1.70; Rye .70 a .72; Corn, Northern .54 a .56; Southern .44; Barley .50; Oats .32 a .38; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50 a a 6.00; Butter, N. Y. 12½ a 16; shipping .9 a .12; Lard .6 a .6¼; Pork, mess 12.50; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .8 a .9. *Rice* .3½ a .3¾; Whiskey, rye .24½ a .25; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky .3¼ a .6½; Ohio .5 a .12½; *Wool*, Merino, American fleece .32 a .38; Pulled, 1st qual. .32 a .35; 2d qual. .25 a .27; 3d qual. .20 a .23; Lambs, 1st qual. .40 a .42.

Prices Current in Philadelphia, Feb. 28.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .9, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .11, Tennessee .9 a .11, Alabama .9 a 11; *Feathers*, Southern .33 a .34, Western .31 a .33; *Flax*, .8 a .8½; *Flour*, superfine 8, fine 7.50, Rye 4, Corn meal, hhds. 14, bls. 2.75; *Flaxseed*, cask 11.25, bushel 1.50; *Grain*, Wheat 1.50 a 1.60, Rye .60 a .70, Corn l. c. white .45 a .47, l. c. yellow .46 a .49, u. c. sound .52 a .54, Oats .25 a .33, Barley, Pa. .45 a .50 Eastern .55; black eyed Peas .40 a .50; *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western ——; *Hemp*, Kentucky ——; *Lard*, .7 a .8½; *Oil*, linseed .88; *Pork*, mess 13 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.50 a 3.75; *Tobacco*, Kentucky 3 a 6¼, Virginia 3½ a 5½; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

THE IMPORTED HORSE VALENTINE

Is a beautiful bay colour, with black legs, mane and tail, is full sixteen hands one inch high, of the best blood in England; will stand the ensuing season at the stable of Mr. Thomas Hemsly, Queen Ann's County, E. S. Maryland, and at Easton, week about—Terms the same as last season.

February 26, 1829. BELA BADGER.

THE CELEBRATED HORSE JOHN RICHARDS.

Will stand at my stable near Bristol, Bucks County, Pennsylvania, at twenty dollars the season, and twenty-five dollars to insure the mare to be with foal. The money for the season to be paid at the time of service. The insurance money to be paid when it is ascertained the mare is with foal. BELA BADGER.

Bristol, February 26, 1829.

RYE GRASS SEED,

For sale, at two and a half dollars per bushel, by

WILLIAM CHILD,

No. 89, *South street, Bowley's Wharf.*

For the good qualities of this grass and other particulars, refer to the American Farmer, Vol. 6, page 396, March 4th, 1825.

March 6, 1829.

ALMANAC.

1829. MARCH.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	7	6	17	5	43	11	26	8	37
Sunday,........	8	6	16	5	44	11	28	9	46
Monday,........	9	6	15	5	45	11	30	10	52
Tuesday,......	10	6	13	5	47	11	34	11	52
Wednesday,..	11	6	12	5	48	11	36	morn.	
Thursday,.....	12	6	11	5	49	11	38	0	49
Friday,.........	13	6	9	5	51	11	42	1	40

Moon—First Quarter, 12th, 4 h. 42 m. M'g.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

TOBACCO.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

FLOUR—best white wheat family, $9.00—superfine Howard street, (sales,) 7.75; city mills, 7.50 *a* 7.75; Susquehanna none—CORN MEAL, bbl. 2.75—GRAIN, best red wheat, 1.60 *a* 1.70—best white wheat, 1.80 *a* 1.90—ordinary to good, 1.50 *a* 1.70—CORN, old, per bush. .48—new corn, do. .46 *a* .48—RYE, per bush. .50 *a* .55—OATS, .26 *a* .28—BEANS, 1.00 *a* 1.25—PEAS, .55 *a* .60—CLOVER SEED, 4.25 *a* 5.00—TIMOTHY, 1.50 *a* 1.75—ORCHARD GRASS 2.25 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—BARLEY, .55 *a* 60—FLAXSEED, 1.00—COTTON, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—WHISKEY, hhds. 1st pf. .24—in bbls. .25 *a* 25½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

MARKETING—Apples, pr. bush. 2.50; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½; Geese, .75; Butter, lb. .25 *a* 37½; Eggs, .25; Potatoes, Irish, bush. .50; Chickens, dozen, 3.75 *a* 4.00; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Terrapins, 4.00 *a* 4.50 per doz Pork, 5.50 *a* 6.00 cwt.; prime Beef, on hoof 5.50 *a* 6.00.

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AGRICULTURE.

(From the New York Evening City Gazette.)

ON THE CULTIVATION AND IMPORTATION OF INDIGO.

Report of a Special Committee of the American Institute, on the Cultivation and Importation of Indigo.

The Committee appointed to make inquiries on the cultivation and importation of Indigo, respectfully report:

That they have directed their attention to the investigation of the following points, viz.

An inquiry into the rise, progress, and decline of the cultivation of the Indigo plant in the United States.

The value of the article to the southern planter, with a view to profit, compared with cotton.

The effects of high duties on imported Indigo, with reference to the encouragement of its growth in the United States.

And a collection of facts on the subject, showing the importance of the article to our manufactures and commerce.

"Of the *Indigofera*," (or Indigo plant,) says an English writer, "there are thirty-five species, the most remarkable of which is the *tinctoria*, now a native of the warm parts of Asia, Africa and America, but originally of Asia only, whence the Dutch alone imported it, till about the commencement of the 17th century, when their exorbitant extortions occasioned its being transplanted to other hot climates."

The following facts are collected from Pitkin's Statistics.

"Indigo was one of the principal articles of produce and export from South Carolina and Georgia, before the planting of cotton in those states became an object of so much importance. The culture of it was introduced into South Carolina about the year 1741 or 1742, and that state is indebted to a lady for the introduction of this valuable plant. An account of the manner of its introduction is given by Dr. Ramsay, in his History of South Carolina.

"The second great staple of Carolina," (says the Doctor,) "was Indigo. Its original native country was Hindostan; but it had been naturalized in the West India islands, from which it was introduced into Carolina by Miss Eliza Lucas, the mother of Major General Charles Cotesworth Pinckney.

"Her father, George Lucas, governor of Antigua, observing her fondness for the vegetable world, sent her, among other tropical seeds, some indigo seed as a subject of experiment.

After several discouraging efforts, she at length succeeded in the cultivation of the plant. Soon afterwards "she married Charles Pinckney, and her father made a present of all the indigo on his plantation, the fruit of her industry, to her husband.—The whole was saved for seed. Part was planted by the proprietor, next year, at Ashapoo, and the remainder given away to his friends for the same purpose. They all succeeded. From that time the culture of indigo was common, and in a year or two it became an article of export."

In the year 1748, (21 of George II.) a *bounty* of six pence on the pound on Plantation indigo, when it was worth three-fourths of the price of the best French indigo, was granted by the British parliament. This increased its culture in South Carolina, and in 1754, 216,924 lbs. of indigo were exported from that province. From November, 1760, to September, 1761, 399,366 lbs. were exported, and in 1770, 585,672 lbs. valued at *l.* 131,552 sterling, or about one dollar per pound. In 1794, 1,553,880 lbs. were exported from the United States, being the greatest quantity exported in any one year. Probably a considerable part of this was foreign indigo.

Since the planting of cotton has become general in South Carolina and Georgia, the culture of indigo has been in a great measure neglected.

From the above statement of the rise and progress of the cultivation of indigo in the United States, its former importance as a staple of the country and an article of export, is fully shown.—The culture of the plant has now dwindled into insignificance, and it appears probable to your Committee, from the best information we can obtain, that not over 10,000 lbs. are now annually raised in South Carolina, and a small quantity in other Southern states, all of which is of a very inferior quality.

The more advantageous cultivation of cotton as an article of profit to the planter, has doubtless been the leading cause of the neglect and consequent decline of indigo, both in the quality and quantity produced. It is also well known to the southern planters, that the process of preparing the indigo for market from the plant, is deleterious to the health of the slaves and other persons employed. Your Committee, however, learn that the continued low price of cotton, and the obvious necessity of a division of labour in agriculture, have induced enterprising individuals in the Southern states to turn their attention to the subject of a revival of the culture of indigo. And here the inquiry arises, what has been done by our government to encourage the raising of this article in the United States, and what is the true national policy to be pursued, so as to protect the planter, without injury to the manufacturer?

Your Committee find, that in 1789, a duty was imposed on foreign indigo imported, of 18 cents per lb., which was raised to 25 cents per lb. in 1790. It was afterwards fixed at 15 cents per lb.; and by the present tariff the same rate was continued for the year 1828, to be raised to 20 cents after June, 1829—in 1830, to 30 cents—1831, 40 cents—1832, 50 cents per lb. It does not appear that these several changes in our tariff, as to indigo, have produced any effect, either on the culture or importation. An article of such necessity to our manufacturers must be obtained, at whatever price, and from the causes already mentioned, they have for years depended on a supply from foreign countries. It is evident, therefore, that the principle applicable to this article, it being indispensable to our manufacturers, and its production in this country attended with difficulties of a peculiar nature, differs from that we contend for as essential to a due encouragement of manufactures: inasmuch as it has been ascertained that the latter can be conveniently produced in this country, and needs only the protection of government to be afforded cheaper than the imported rival article.

Your Committee are of opinion that if it should be considered of advantage to the southern planter to encourage the extensive cultivation of indigo, it can more easily be effected by a bounty from government to the agriculturist, than by raising the duty on the imported article, which would operate to the injury of the manufacturer. This opinion is sustained by the following remarks of Alexander Hamilton, in his report on manufactures, in 1790.

"Bounties are sometimes not only the best, but the only proper expedient, for uniting the encouragement of a new object of agriculture with that of a new object of manufacture. It is the interest of the farmer to have the production of the new material promoted, by counteracting the interference of the foreign material of the same kind. It is the interest of the manufacturer to have the material abundant or cheap. If prior to the domestic production of the material, in sufficient quantity to supply the manufacturer on good terms, a duty be laid upon the importation of it from abroad, with a view to promote the raising of it at home, the interest both of the manufacturer and the farmer will be disserved. By either destroying the requisite supply, or raising the price of the article, beyond what can be afforded to be given for it, by the conductor of an infant manufacture, it is abandoned or fails; and there being no domestic manufactories to create a demand for the raw material, which is raised by the farmer, it is in vain that the competition of the like foreign articles may have been destroyed.

"The true way to conciliate these two interests, is *to lay a duty* on foreign manufactures of the material, the growth of which is desired to be encouraged, and to *apply the produce of that duty by way of bounty*, either upon the production of the material itself, or upon its manufacture at home, or upon both. In this disposition of the thing, the manufacturer commences his enterprise, under every advantage which is attainable as to quantity or price of the raw material: and the farmer, if the bounty be immediately given to him, is enabled by it to enter into a successful competition with the foreign material.

"There is no purpose to which public money can be more beneficially applied than to the acquisition of a new and useful branch of industry; no consideration more valuable than a permanent addition to the general stock of productive labour."

In conclusion of this part of the subject, your Committee would allude to the example of the British government. It has been seen that when the Southern states were British colonies, that government encouraged the growth of indigo by a bounty of six pence sterling per pound. Every article of foreign growth used in their manufactures, it has always been the policy of the nation to admit at a low rate of duty. Accordingly, we find by the British tariff of 1819, indigo pays a duty of five pence sterling only, or about nine cents per pound.

The tables of exports and imports of indigo for several years, annexed to this report, will exhibit the importance of this article to our commercial interests. Indeed, it has been shown that the importation of this article, with other dye stuffs, and the oil required by our woollen manufactories, employ more tons of our shipping in foreign commerce, than the whole amount of tonnage required in the importation of foreign woollens into the United States.

With regard to the quantity of Indigo consumed in this country, your Committee have not been able to arrive at any definite conclusion. Taking the amount of exports from the imports in the year 1827, the amount left for home consumption will be found to exceed 800,000 pounds, part of which may have been afterwards exported. And as the amount of domestic indigo produced cannot probably be estimated at over 50,000 pounds, we consider it fair to state the present annual consumption of indigo in the United States at about 800,000 lbs.; which consumption, of course, is increasing with the growth of our woollen and cotton manufactures.

The tables herewith show that the principal importations of indigo into this country, have been from the British East Indies. The quantity, however, received from Mexico and other southern parts of America, is gradually increasing; a subject of congratulation, when it is considered that the Southern republics of this continent afford an extensive market for our produce and manufactures.

Your Committee also subjoin a statement of facts, connected with this report, submitted to them in the form of answers to queries addressed by them to a member of this Institute, who is now, and has been for many years, a considerable dealer in indigo, and of course practically acquainted with the subject.

Exports of Indigo from the United States.

	Pounds.	
In 1770,	584,672	£131,552 or $584,787
1791,	497,720	
1792,	858.996	
1793,	875,789	
1794,	1,528.928	
1795,	1,296.026	
1796,	915.635	
1797,	269,639	
1798,	311,457	
1799,	312,133	
1800,	572,999	
1801,	411,140	
1802,	493,220	
1803,	21,203	
1804,	175,838	
1805,	455.698	
1806,	457.836	
1807,	882,242	
1808,	140,502	
1809,	354,168	
1810,	844,011	
1811,	574,120	
1812,	237,057	
1813,	11,520	
1814,	3,010	
1815,	45,201	
1816,	527,458	

Foreign Indigo imported into the United States, in the year ending 30th Sept. 1823.

Where from.	Pounds.	Value.
Sweden,	183	$ 130
Danish West Indies,	16,388	33,001
Dutch West Indies, and American colonies,	7,622	18,532
British East Indies,	659,422	1,318,677
Hanse Towns and ports of Germany,	366	400
French European ports on the Atlantic,	2	3
Manilla and Philippine Islands,	16,176	18,321
Honduras, Campeachy, and Mosquito Shore,	25,930	44,121
Cuba,	32,530	59,246
Spanish South America, Colomb. and Mexico,	134,683	259,535
	893,307	1,751,966

Foreign Indigo Exported in the same Year, to

Russia,	94,994	$243.317
Sweden,	2,039	3,965
Holland,	214,361	487,170
Ireland,	5,128	9,232
Gibraltar,	25,693	125,044
The Hanse Towns and ports of Germany,	95,589	227,660
French European ports on the Atlantic,	170,214	402,526
Do. on Mediterranean,	17,317	167,671
Do. West Indies and Am. colonies,	24	62
Italy and Malta,	75,866	183,607
Trieste and other Austrian ports on the Adriatic,	81,500	196,245
Turkey, Levant, Egypt, Mocha, and Aden,	27,859	95,382
	860,584	$2,141,381
Entitled to Debenture,	859,675	2,140,382
Not entitled to do.	909	1,499

American Indigo Exported the same Year.

To England, (and to no other country,)	2,617	$ 2,024

Foreign Indigo Imported into the United States, in the year ending 30th Sept. 1826, from

Swedish West Indies,	797	$ 1,488
Danish do.	10,541	19,575
Netherlands,	1,530	4,500
Dutch East Indies,	130	296
Dutch West do.	9,138	15,966
England, Man, and Berwick,	31.922	36,346
British East Indies,	615,076	1,021,080
West do.	452	865
Hanse Towns,	1,782	5,500
Hayti,	39	80
Spain on Mediterranean,	2,125	3.372
Manilla,	121,157	147,314
Cuba,	1,507	2,400
China,	2.553	1,906
Mexico,	37,830	59,889
Central Republic S. Am.	34,538	62,836
Honduras,	23.358	34,093
Columbia,	257,225	562,013
	1,151,700	$1,979,519

Foreign Indigo Exported the same Year, to

Russia,	12,716	$28,678
Sweden and Norway,	615	923
Denmark,	37,335	61,617
Holland,	79,824	180,866
England, Man, and Berwick,	7,561	67,079
Gibraltar,	21,057	51,889
British Am. colonies,	10	14
Hanse Towns and ports of Germany,	21,444	48,872
French European ports on the Atlantic,	18,551	38,142
Do. on Mediterranean,	48,999	104,311
Hayti,	15	84
Teneriffe, and other Canaries,	2,593	5,335
Cuba,	14,463	26,000
Italy and Malta,	30,288	63,025
Trieste, and other Adriatic ports,	23,622	54,643
Turkey, Levant, and Egypt,	11,968	28,099
Mexican ports on the Atlantic,	16	
Central Republic S. Am.	1,971	3,514
Buenos Ayres,	3,681	8,433
	832,713	712,080
Entitled to drawback,	328,126	703,721
Not entitled to do.	4,592	8,350

American Indigo Exported in the same Year.

England,	1,512	965
Hanse Towns, &c.	625	400
French ports on Atlantic,	3,152	2,557
	5,289	3,922

(From the New England Farmer.)

MR. TIDD'S NEW VARIETIES OF POTATOES.

Mr. Editor,—As my name has found its way into some of the papers of the day, in relation to raising from the seed a large variety of potatoes, I thought it might not be unacceptable to your readers for me to give a description of the potatoes and my method of raising them. In doing this, I shall endeavor to relate the experiment in as intelligible a manner as possible, in order that if any other person into whose hands your useful paper may fall, should be desirous to repeat the experiment, they may be able to profit as much by my errors as by any successful method I may have adopted.

A year ago, last fall, I collected, principally I believe from the Early Whites, and the Calicoes, a quantity of potato balls, and laid them by, in a room exposed to all the inclemencies of the season, until the next spring, about the last of March or first of April, the exact time not known. When I came to examine them, preparatory to planting, I found them dried so hard, and shrivelled, that I was afraid they were entirely spoiled. I, however, selected some of the best of the balls, and after much labour, in soaking them in warm water, &c., succeeded in extracting a few seeds, and planted them in my green house. The rest of the balls I kept in water a week or more, without its appearing to have much effect on them. As it did not appear to me practicable to separate these seeds from the balls, I began almost to despair of being able to proceed with my experiment to the extent I had proposed. The thought occurred to me, that if I separated these balls into small pieces, and planted them, some of the seed might possibly come up. I resolved to try the experiment, which succeeded beyond my most sanguine expectations. In every place where I put a piece of one of these balls, the plants came up very thick. In patches of, perhaps, a half inch in diameter, there were from twenty to fifty plants, so that I soon found that I had abundance of them As soon as these plants were well up, and while they were yet in the seed leaf, I took them up, carefully, and planted them out about three inches apart, as I did also others, which I had previously sowed, after they had gained more strength. I found that they bore transplanting remarkably well, as almost every plant lived, and that without any particular care of shading, &c., though I generally chose a cloudy day to transplant them. I found by computation, after I had pricked them out in rows, that I had about two thousand plants which occupied about one-fourth part of my green house. I let those plants remain in the green house, till all danger of frost was past, or about the middle of May, when I re-transplanted them into a well prepared spot in my garden, about six by eight inches apart. Here, I found afterwards, I had committed a great error in planting them too close; for the vines by their luxuriant growth soon covered the ground. Notwithstanding they were planted so thick they bore bulbs, and even ripened their seeds, and grew as stout and as stocky as any I ever saw, even from the long red potatoes; and the yield of some of the plants would cover nearly double the space of ground allotted to them. Hilling was entirely out of the question, and some of them were destroyed in attempting to eradicate the weeds, although the operation was performed by a very faithful man, with a strong injunction to be careful. I was led into this error by supposing as I had both read and heard, that the yield, the first year, would be very small, not more than two or three potatoes, about as big as a common walnut. This I found by experience, which is the best schoolmaster, to be a mistake; for I had, on a considerable number of my vines, some fair sized potatoes, and a few larger than the average growth of early whites.

The most interesting part to me, and that which I had been anticipating all summer, was the digging of them. It is a matter of great interest to me, to see with what small beginnings, and apparently weak means nature achieves her great designs. My anticipations in this case were not disappointed. I dug them principally myself, and mostly with my hands, for the double purpose of not injuring, and keeping the potatoes from each plant separate. I found them of all colours, from black to white, besides a great number that were variegated, and of all sizes, from that of a pea to a full grown potato; and of all forms, from a round to a long red, including some handsome ovals; and in all numbers, from one to several hundred in a hill, if I may be allowed the term. The greatest yield was from a vine which produced fifty-two, nineteen of which were tolerably fair sized potatoes. There was a great difference in the growth of the vines, both in the green house and in the garden. In transplanting them from the green house into the garden, I discovered on some of the small vines, a few small potatoes about the size of peas, while on those, which were much larger, and looked more thrifty, I could not discover any. And so it was in some measure in the fall, when I dug them. Some of the largest sized vines had no sign of a potato on them: but then again, some of the largest vines bore the greatest crops of potatoes. I found that the size of the vine was no criterion by which I could judge of the probable crop of potatoes. There were a good many varieties, which I think worthy of notice, a few of which I will name, and attempt to describe.

There was one vine which had, I should think, several hundred, all about the size of a pea. They hung in clusters, something similar to grapes.—Another kind resembled in some measure, in form, the sweet potato. Another bore all the potatoes on the stem above ground. They were black, and in considerable numbers, and would average about half size. They did not hang in clusters, but were distributed along the main stem to the distance of about two feet, and bore it, by their weight, down to the ground. In another, the potatoes all grew in one clump, so much so as to be indented one into the other, and pressed into all kinds of shapes, with obtuse edges. There did not appear to be any soil to speak of between them. In some of the hills, the potatoes were all small; in others there were no small ones, but all middling sized. In others all large; and in some mixt, large, small, &c. There were some round, some oval, some long, some very smooth, shining delicate skins, and some remarkably rough. I have all colours in all shapes, and am doubtful if there ever was before so great a variety of potatoes seen together.

There seems to me to be considerable difficulty, Mr. Editor, in regard to what will be the best course for me to pursue, in order to secure the greatest benefit with the least expense, from my experiment. The first question is to know if it is necessary to plant all the potatoes from each plant, in order to obtain all the varieties; or in other words, will all the potatoes, produced from the same vine, the first year from the seed, yield potatoes possessing the same qualities? If I could be well assured that all the potatoes produced from any single seed would yield potatoes possessing precisely the same qualities, then, instead of having twelve or fifteen thousand potatoes to plant, I should not be under the necessity of planting more than about fifteen hundred; or for fear of accident, say three thousand. I lost in those vines, which bore no potatoes, which died in transplanting, or were destroyed in weeding, about five hundred plants, so that I had about fifteen hundred, which bore potatoes. The second question is, how far apart they must be planted in order to prevent them from mixing? This I conceive to be very important; for if they should mix, the potatoes I might select to test the quality, might be entirely different from all the rest in the same hill, creating confusion and uncertainty in my next year's crop. And if I must plant them at any considerable distance apart, it will require more ground than I shall be willing to spare.

That potatoes will mix in the ordinary way of planting them, I had occular evidence last season. My man, who knew that I was something curious in these things, brought me a potato, apparently an early white, with a light red streak, in imitation of the calicoes. He said that it grew among the early whites in the vicinity of some calicoes. A row of calicoes ran parallel to, and immediately adjoining the row of whites, from among which this potato was taken. I have preserved it among my seedlings, and intend planting it with them.—I had some seedlings marked in precisely the same manner. The third question is, what method shall I adopt to test their quality the next season, should I live to finish the experiment? For, if I have fifteen thousand hills of potatoes, and must try every hill separately, if they are cooked three times a day, it would require thirteen years to finish the trial. You see, Mr. Editor, into how much difficulty my prying curiosity has involved me; and that it will require much time, trouble and expense to carry on this experiment to completion, in the same style in which it was commenced. From the success which has so far attended my weak endeavours, I feel desirous that it should be continued under the best possible auspices. Although I candidly confess that curiosity, combined with amusement, was the chief inducement at the commencement of the experiment, as I performed all the work, except weeding, with my own hands, yet I will not deny that the honour—the honour, Mr. Editor, should I be successful in raising a very superior potato, in point of precocity, quantity, and quality, which present appearances seem to justify me in anticipating, is not without its influence on my mind.—Should I not secceed in obtaining a variety, in which all these good qualities unite, yet I hope to have several in which two of them shall predominate in an eminent degree. JACOB TIDD.

Cultivation of the Potato in Norway.

So slow has been the progress of this root in Norway, that Von Buch states that it was scarcely known at Bergen in 1762; a circumstance the more remarkable, as at least a century has elapsed since its introduction into Iceland, the climate of which is less favourable than that of Norway. In about twenty years the potato found its way into the Nordland, and not long afterwards was introduced into Finmark, where it has now become pretty general. The potatoes of Alten, though seldom exceeding the size of a small egg, form, nevertheless, a valuable addition to the resources of the inhabitants of Lapland. Their produce usually averages about thirty fold. In one recent instance it reached to forty-four. The price is usually from 3*s.* 6*d.* to 5*s.* the barrel, or sack, of four English bushels. The potatoes grown in Finmark are remarkably sweet to the taste, of a waxy nature, and in colour of a deepish yellow. Some that were sent me lately from Alten, were planted in good garden ground, in the early part of the summer, and prove to be a valuable kind of early potato. The originals were all of a round shape; the produce, however, which are good, and exceed the former several times in size, are many of them oblong, and not unlike the common kidney. The remarkable alleviation of disadvantage in respect to climate which Finmark presents, the frequent luxuriance of its indigenous plants, and the powerful vivifying influence of an arctic summer, encourage the supposition that, under proper management, its soil might be rendered far less ungrateful than is generally supposed. The culture of the potato in particular, it may be hoped, will both improve and become extended; a circumstance that, in the present almost absolute dependence of Finmark and Nordland upon Russia for a supply of bread corn, is earnestly to be desired; and, if we examine the character of the climate of the Islands and coasts of Northern Norway, the degree in which it differs from all countries under the same parallel, and the circumstance by which this difference is apparently produced, such an expectation will not appear ill-founded. Von Buch, who certainly did not form too favourable an idea of the climate of Finmark, justly remarks, that in well secured cellars at Keilvig, close to the North Cape, Hammerfast, and Alten, it never freezes; that the stream of fresh water which enters the bay of Hammerfast from the little lake above it, flows unfrozen during winter; and that the long grass, which springs among the crevices of the rocks of the North Cape itself, does not cease to vegetate powerfully beneath the snow, in the absence of the sun.

[*Capell Brooke's Lapland.*

QUINAR SEED.

J. S. Skinner, Esq. *Cleves, Ohio, Feb.* 19, 1829.

Sir,—Observing in some of your late papers, notices from two or three of your correspondents whom you favoured with *Quinar* seed last season, I am reminded of my negligence in not acknowledging likewise the receipt of some from you, and informing you of the result. I planted but a few seeds of the Nankin cotton, as the season was too far advanced. They vegetated and grew finely, but had not time to develop their blossoms and arrive at perfection. The balance of the seed I will try this spring. The South American beans appear to be very fine. My stock of them is increased a hundred fold from the seed I received from you. But the *Quinar* from South America—that was the seed for which I thanked you most when I received it, having long been anxious to obtain the *Chenopodium quinoa,* which I understood was grown in the cold regions of the south, and which I immediately conceived to be the *Quinar* you sent me. Was I right in this supposition? The *Quinoa* is thus mentioned by Humboldt and Don Ulloa.

"The plants which are cultivated in the highest and coldest parts of the Andes and Mexican Cordilleras are the potato, the *tropæolum esculentum,* and the *chenopodium quinoa,* of which the grain is an aliment equally agreeable and healthy."—Humboldt's New Spain, vol. 2, p. 351.

"Whenever the old historians use the expression small Peruvian rice, (arroz pequeno,) they mean the *chenopodium quinoa,* which I found very common in Peru and the beautiful valley of Bogota." Ibid.

"Besides the grains of the same species with this in Spain, this country," (province of Quito,) "has one peculiar to itself, and very well deserves to be ranked among the most palatable foods, but still more valuable for its being one of the preservatives against all kinds of abscesses and imposthumes. This useful species of grain, here called *quinoa,* resembles a lentil in shape, but much less, and very white. When boiled it opens, and out of it comes a spiral fibre, which appears like a small worm, but whiter than the husk of the grain. It is an annual plant, being sowed and reaped every year. The stem is about three or four feet in height, and has a large pointed leaf, something like that of the *malloro;* the flower is of a deep red and five or six inches in length, and in it are contained the grains or seed. The quinoa is eaten boiled like rice, and has a very pleasant taste; and the water in which it has been boiled is often used as an apozem. The quinoa is used in external applications; in order to which it is ground and boiled to a proper consistence, and applied to the part affected, from which it soon extracts all corrupt humours occasioned by a contusion."—Don Ulloa's Travels, vol. 1, p. 305.

"The province of Caraugas is about 70 leagues west from the city of Plata, and extends above 50 leagues. The climate of this jurisdiction is so cold that the only esculent vegetables here are the *Papa, Quinoa,* and *Canagua.*"—Ibid.

If then the *quinoa* and the *quinar* are the same, I entreat you to procure some fresh seed, through the medium of your naval friends—for I regret to state that I have been as unsuccessful as your other correspondents in getting that which you sent me to vegetate. It was doubtless too old or damaged. With Humboldt before me, I will take the liberty of making another quotation from that celebrated author.

"Why have not, every where, the names of those been preserved, who, in place of ravaging the earth, have enriched it with plants useful to the human race?"

Yours, very respectfully, J. C. S.

[We have no doubt it is the same vegetable, and will procure some more of the seed through some of many friends we have amongst our officers of the navy, now in, or on their way to the Pacific.]

CLIMATE OF FLORIDA.

St. Augustine, February 12, 1829.

To the Editor of the American Farmer:

Sir,—From a letter of our respectable delegate, the Hon. *Joseph M. White*, lately published in your valuable agricultural journal, it appears that reports, injurious to the interests of Florida as a Sugar growing region, have been put in circulation; and I have direct information that an individual of high reputation in your city has been the means of deterring several persons possessing large means, from transferring their property to this Territory, under the assumption that nothing here would reward the industry of the planter for his care and diligence, in consequence of the sterile quality of some of its soil, and the low situation of the rest.

So much has been said upon the subject of Florida, that has been deemed abroad unworthy of belief, that I cannot now hope to gain much attention from the statements I shall make, because my motives may be suspected, but so may the statements of those who create suspicions of the unfitness of its soils for civilized uses, be suspected of a want of patriotism, in disseminating what will in the end be found to be real absurdities.

Soon after the United States came into possession of this country, a society was formed in the city of St. Augustine, with a view to collect information on all subjects relating to agriculture and political economy generally. Some of its members were practical men, and spent much time in exploring the country and gathering specimens of the various descriptions of soils for exhibition at regular meetings of the society, which were experimented upon until the members were enabled to arrive at conclusive results. These results have generally appeared before the public in the form of reports, and may be relied on. By none of which will it be seen that Florida is a "barren sand bank" or a "sterile region unfit for the habitation of man." Sectional jealousy alone has contributed to check the value of these reports, but when it shall have been spent, then will it be seen how valuable they are.

Men who have lived all their days in cities, and been rocked in the cradle of indulgence, or brought up to professional pursuits, can have no practical knowledge aside from that profession; and are less likely to know much of what pertains to husbandry than those who have made it the business of their lives. Those whose views have been confined to well stocked farms, and splendid houses of princely cost, will not see much in new countries to please the eye; and those who long for velvet cushions and brilliant assemblies, with all their circumstance and show, need not think of Florida as a means of present gratification. Florida, though one of the earliest discovered countries on the Atlantic coast, and St. Augustine though the first settlement, are but new; and will only smile pleasantly on those who "put their shoulders to the wheel."

That Florida is not more sterile than the countries which surround it will appear manifest. Cuba on the south is as fertile a region as any that can be found. Georgia, Alabama, and South Carolina, to the north have for ages enabled the proprietors of their soils to roll in splendor and wealth; and are now again offering greater rewards to the husbandman by inviting to new objects of agriculture. In Louisiana, far west, the happiest results appear in the products of that state. If sugar cane will grow several degrees of latitude north of us, and several degrees of longitude west of us, can any one rationally undertake to place Florida in a more unfavourable condition. If South Carolina, and Georgia, and Alabama, and Louisiana, whose soils bear the same growth of timber, are fit for the "habitation of man," is it not likely that Florida is equally as fit for his use.

That Florida is susceptible of very great improvement is evident from a number of facts. *First*, that the Territory is watered on the east and west by the Atlantic and the Gulf of Mexico, for several hundred miles. *Second*, that there are many natural drains emptying into the ocean on the east, and innumerable outlets to the great basin on the west side of the peninsula which runs into the sea more than four hundred miles; to which natural drains, artificial ones may easily be created at small expense. *Third*, that many parts of this Territory, now apparently forbidding as to prospect, were under a high state of cultivation, while this country was in possession of the English. And that it is well adapted for the culture of sugar cane is most conclusive from the following facts. *First*, that in Georgia, and South Carolina, and Alabama, from one to three degrees north of us, great success has attended the cultivation of the article; and that in Louisiana, it has become the principal staple, which lies several degrees west. *Second*, that while the seasons were too short to permit the cane to ripen (or tassel) in the states mentioned, in Florida it always arrives at maturity; and when ground exhibits the greatest evidence of perfection by the superior strength of its saccharine matter. *Third*, that on the 11th of January last, being our coldest day, and the only one we have had during the season, that the cane in Florida was unable to resist the cold, the thermometer stood at 31°, while at Charleston on the same day, it stood at 14°, and at Magnolia 4°, west of St. Augustine, at the same time, it was at 17°. *Fourth*, that sugar has, this season, been manufactured in quantities of from ten to fifty hogsheads by several planters this season, who were induced to change their culture by the extraordinary prospects presented to them by this change.

I have been more minute this season than I have hitherto been, in my inquiries respecting the results of those who have entered upon the culture of the sugar cane, and I wish to arrive at no greater certainty upon any subject than upon the success of this. I have conversed with many planters who have been successful, and have become satisfied that the poorest of our pine barren, for the purposes of cane culture is more valuable than the same quantity of the richest land in Maryland, is to the Maryland farmer if planted in corn; and I care not when the comparison is made or how soon. I have been favoured with samples of sugar by most of the planters to whom I have referred, and I have now before me a most beautiful one from Mr. *McIntosh*, who resides in Alachua county, seventy miles west of this city. He has manufactured this year sixty-seven tierces of sugar, of more than 700 lbs. and twenty hogsheads of molasses, with a wooden mill, which cost him probably not three hundred dollars.

Added to this pleasing state of things of what I *know*, the information, which is creditable, that Col. *Robinson* who resides three hundred miles west, and far west of Magnolia, where the thermometer was at 17° on the 11th January, has equally well succeeded, is also most gratifying. The facts and reasoning I am here enabled to present are at variance with the assumed premises of those who wish to throw discouragements in the way of the prosperity of this country; but whether prompted by selfishness or by ignorance, Florida will advance—and the productions of her soil will contribute greatly towards the independence of these states. In a national point of view, it should be the desire of every patriot that Florida should be improved; and it is a most satisfactory evidence of the enlightened wisdom of our delegate that he has yielded his talents and influence to this object; and though the Territory has been obliged to encounter many difficulties; there is great satisfaction in cherishing the belief, that it is now beyond the control of fortuitous events. With great respect, I am, &c.

E. B. GOULD.

HORTICULTURE.

KITCHEN GARDEN FOR APRIL.

If you omitted sowing or planting any principal crops as directed for last month, let it be done early in this, particularly the main crop of onions, leeks, parsnips, carrots, red-beet, &c. for when sowed late, they never attain the equal perfection, as when at proper season.

Finish sowing asparagus, if not done the preceding month, to raise plants for fresh plantation and forcing.

Sow the main crop of the green and red horecole, in an open situation, to plant out in May and June, for autumn, winter, and the supply of the following spring. Sow likewise some of the purple and cauliflower sorts of brocoli, to plant out in summer for the first general autumn crop.

Kidney-beans of the early dwarf kinds should now be sown in a warm border, as also some speckled dwarfs, and a larger supply in the open quarters in drills two feet, or two and a half distance.

Sow different kinds of lettuce two or three times this month, for succeeding crops.

Be particularly attentive to your melons, which are in hot-beds. Train the vines regular, give them air daily, with occasionally moderate waterings. Cover the glasses every night, and keep up a good heat in the beds; linings of hot dung.

Sow full crops of peas, for succession of marrowfats once a fortnight, also of rouncivals, moretto, and other large kinds; likewise some hotspurs, &c. to have a plentiful variety, and young. Sow them in drills, two feet and a half or a yard asunder, or the large kinds for sticking, four feet distance.

Finish planting the main crop of potatoes as directed last month.

Sow the seed for pot-herbs of thyme, savory, sweet-majoram, borage, burnet, dill, fennel, chervil, marigolds, corainder, tarragon, sorrel, basil, clary, angelica, hyssop, anise, beets, and parsley.

Plant aromatic herbs, as mint, sage, balm, rue, rosemary, lavender, &c. all of which either by young or full plants; as also slips, parting roots, and off sets, and some by slips and cuttings of side shoots.

Continue sowing successional crops every fortnight of radishes, in open situations to have an eligible variety, young and plentiful. Those that have already come up you must thin or they will run with great tops, but small roots.

Sow a principal crop of savoys in an open situation, detached from walls, hedges, &c. that the plants may be strong and robust, for planting out in summer to furnish a full crop well cabbaged in autumn, and for the general supply, till next spring, before a most valuable autumn and winter cabbage.

To destroy Caterpillars and Canker Worms.

Sprinkle your fruit trees in the spring, by the help of a garden engine, with soap-suds, twice a week, for two or three weeks.

VEGETABLE KINGDOM.

The subscriber respectfully acknowledges the receipt of the following named seeds for the use of the Capitol Square, and other parts of the public grounds within the City of Washington:

Last spring, received from his excellency J. Q. Adams, President of the United States, the *Quercuo Suber;* from the hon. T. Baldwin, the *Morus Alba.*

This fall and winter, from the hon. Mr. Williams, of the Senate, the *Carya Olivæformes;* from the hon. Mr. Sloane, *Æscules* and *Rosa Scandens*; from the hon. Col. M'Kee, *Æsculus*;and from the hon. Mr. Roane a sample of sweet-scented *Vernal Grass.*

Left at my house, in the name of Mr. Washington, *Magnolia Acumenala,* and a species of *Hileiseus.*

Sent to me, planted in a box, from the state of Massachusetts, by S. Dinsmore, Esq. a species of *Ires.*

It gives me a great deal of pleasure that the gentlemen composing that hooourable body, (the Congress of the United States,) have taken such notice of that natural production which I have introduced within the Capitol Square, from that portion of the vegetable world which is in and about the District of Columbia, as to induce them to add to that number by introducing seeds from the districts which they have the honour of representing.

I hope the gentlemen will, while at their respective homes, and when perambulating their farms, observe where Flora lavished her store; and if they should take notice of any plants that are beautiful, ornamental, or useful for medical purposes, to mark it by sticking a stick down by it, or some other mark by which they may know it when the seeds are ripe, when they can gather the seeds and take up the plant, if they choose, and send one or both on to me for the use of our public grounds.

Our agents among the various tribes of our aborigines, would do well by taking notice, and selecting from the beauties that surround them, which no doubt are many, and forward on to me, at every opportunity, for the use of the public grounds, as many species as they possibly can collect.

Our ministers, consuls, and other agents, residing in foreign countries, should take great notice of the trees, shrubs, and plants in general, which are the natural growth of the countries wherein they reside, and forward on to me, time after time, for the use of our public grounds at this, the capital of our Union, where they may, at some future day, on their arrival home, have the pleasing satisfaction of seeing them in a fine growing state.

If each individual who should have it in his power, would act as described above, we should soon have our grounds as beautiful and as ornamental as the grounds about Paris, London, or any other part of proud Europe.

Our navy officers, too, who should visit or land at foreign ports or countries, would do well if they would bring or send on some rare or choice seeds or plants that would aid in embellishing our grounds.

In my communication last year in the National Intelligencer, I ventured to say that there was not a disease that the human system was subject to, but there was a plant to ease or cure it, if properly applied; and if so, is it not laudable to collect and send on seeds or plants for the use of our public grounds? Here we have every kind of soil, situation, and aspect, and can have every kind of climate, by the aid of a little art.

There are about 30,000 species of plants, or perhaps more; and when will we have them represented on our public grounds; or when will we have one half, or even one fourth? I know not when. One thing I know: if the lovers of plants, at home and abroad, were to use a moderate portion of zeal and industry by sending seeds and plants home at every opportunity that would offer, I would soon exhibit on the public grounds of the capital of this happy republic, and of this my adopted country, a grand display of the beauties of the vegetable kingdom, and place it before the passing and scientific world in its own beautiful and natural garb.

Oh, how long will that science, the most beautiful of sciences, be obscured with that cloud of darkness which now hangs over it? And when will we have the pleasure of seeing ten, fifteen, or twenty thousand of its inhabitants display and expand their foliage, and beautiful and sweet-scented flowers, to the fashionable world? And when will the time arrive when we can see, in the month of February, when the ground is clad with snow, four, five, ten thousand or more bunches of grapes hanging from their vines; and when, at the same time, will we see one, two, or three thousand of the *Bromelia Ananas,* supporting its beautiful and delicious fruit, the pine apple? And when, too, shall we see the *Agava,* called the American Aloa, from whence the Spaniards of South America extract a delicious drink—I say, when shall we see it in our public square, lawos, or gardens, putting forth its magnificent stem, which supports the many beauties that hang on it? And when, too, shall we, at this time of the year, see the peaches, cherries, and the innocent sweet little strawberry, in full bearing of fruit? And when, too, shall we behold a fine range of orange and lemon trees, extending east and west from the President's mansion? (all of which should be before this time.) But stop! this is all a dream. Oh, no! I must have been translated into a northern clime. I must wipe the web from my eye, and see the light of heaven. All this may happen, and soon too. It has happened so in other countries, and why should it not happen so under this happy republic, where we know of no difference between the many situations that now exist in this country, but which of them will support the constitution the best: and may it continue so, and in the greatest purity, while the vegetable kingdom continues to produce a plant, is my sincere wish.

F. FOY.

FRUITS.

The art of improving the Quality of Fruits is said to have originated in Belgium; and while the Academy of Munich were doubting the possibility of this description of improvement, and even giving a prize to an essay which maintained the negative side of the question, the art had already made an immense progress in the Netherlands.—It is not meant that new fruits were never raised from seed before, but that the business of raising new sorts of fruits from seeds was never before undertaken on scientific principles. Chance has, at all times and in all countries, discovered new sorts of fruits from seeds which have sprung up accidentally; but it was only in Belgium, towards the latter end of the eighteenth century, that seedlings were raised in large quantities with reference to this object. The city of Mons made the first attempt, and obtained four exquisite new pears, viz. the Passe Colmar, the Beurrée Rance, the Beurrée Spence (in honour of the celebrated entomologist,) the Beurree d'Hiver, and Les Délices d'Hardenpont. These were raised in the garden of Counsellor Hardenpont. Other amateurs have devoted themselves to the same subject, and obtained several pears of excellent quality; the Bonne de Mons, the Doyenné de Mons, and many more. M. Siart procured La Napoleon; and that learned pomologist, the Abbe Duquesne, raised among others, the excellent Marie Louise. M. Petit pursued those researches which M. Duquesne was obliged to abandon from ill health and other causes. In Flanders they discovered the incomparable Fondante des Bois (Boschier;) the Capuchins of Louvaine obtained their Pastorale; and the Comte de Colona of Malines, L'Urbaniste.—During these times thousands of plants were originated annually at Brussels, with a view of studying the quality of their fruits. The result of the whole has been published by Professor Van Mons, in a catalogue dated Louvaine, 1823.—*Messager des Sciences et des Arts,* livres 1 et 2, 1826, p. 77.

(From the New York Farmer.)

SCUPPERNONG VINE AND GRAPE.

Extract of a letter from B. Blodget, Esq., to Dr. S. L. Mitchell—dated Raleigh, N. C., Jan. 6, 1829.

"I have recently returned from Alabama, and have collected fifty-two sorts of grapes, the spontaneous growth of our United States. Among the collection is the Scuppernong in Washington county, in North Carolina. Captain Wm. Burlingham offered some of the wine to taste, that was fourteen years old. He has cultivated four acres for eighteen years, and thinks the wine superior to the best Madeira or Champaigne. The vine is so prolific, that a single plant has produced him one ton of fruit, and yielded him eight barrels of wine. I intend to introduce this species of vine. It received its name from the circumstance of being first discovered near a swamp of that denomination. I intend to send you a cask."

Preparation of Cinnamon.—The manager of the cinnamon gardens good naturedly sent some of the cinnamon peelers to our bungalows, that we might see the way in which the spice is prepared. They brought with them branches about three feet in length, the rough bark of which they scraped off with knives, and then, with a peculiar instrument, stripped off the inner rind, in long slips; these are tied up in bundles, and put to dry in the sun, and the wood is sold for fuel. In the regular preparations, however, the outer bark is not scraped off; but the process of fermentation which the strips undergo, when tied up in large quantities, removes the coarse parts. The peelers are called Chailers.

[*Heber's Narrative.*

The Culture of Culinary Vegetables in the Sandwich Islands, was introduced by Marini, a Spaniard, about the end of the last century. Marini formed extensive gardens, where melons and gourds of all kinds, various species of cabbage, potatoes, and other vegetables common in Europe, were cultivated with great success.—*Voyage to the Sandwich Islands in* 1824-25, 4to. p. 41.

RURAL ECONOMY.

SCHABZIEGER CHEESE,

Is that species of Swiss cheese made by the mountaineers of the Canton of Glaris, and readily distinguished by that peculiar marbled appearance, and aromatic flavor, communicated by the pressed flowers or the bruised seeds of the Melilotus officinalis. The practice of mixing the flowers or seeds of plants with cheese was common among the Romans; thyme was generally used by them. That a similar method was pursued in the middle ages is apparent from an anecdote told of Charlemagne.—When travelling without attendants, he arrived at a bishop's palace: it was a fast day, and the bishop, having no fish, was obliged to set cheese before the monarch. Observing some small specks (parsley seed) in it, and mistaking them for rotten parts, he took the trouble of picking them out with his knife. The bishop told him he was throwing away the best parts of the cheese, on this the monarch eat it as it was, and liked it so much, that he ordered the bishop to send him, every year, two cases of such cheese to Aix-la-Chapelle; and, in order that the cheese-merchant might not send cheeses without the seeds, he directed the bishop to cut each in two, and afterwards to fasten the parts by means of a wooden skewer. [*Foreign Review.*

LADIES' DEPARTMENT.

MELODY.

By W. Leggett.

If yon bright stars which gem the night,
  Be each a blissful dwelling sphere,
Where kindred spirits reunite,
  Whom death has torn asunder here;
How sweet it were at once to die,
  And leave this blighted orb afar!
Mix soul and soul to cleave the sky,
  And soar away from star to star!

But oh! how dark, how drear and lone,
  Wuuld seem the brightest world of bliss,
If wandering through each radiant one,
  We failed to find the loved of this!
If there no more the ties shall twine
  That death's cold hand alone can sever,
Ah! then, those stars in mockery shine,
  More hateful as they shine forever!

It cannot be each hope, each fear,
  That lights the eye, or clouds the brow,
Proclaims there is a happier sphere
  Than this bleak world that holds us now,
There is a voice which sorrow hears,
  When heaviest weighs life's galling chain—
'Tis heaven that whispers—"dry thy tears,
  The pure in heart shall meet again!"

BRAVERY.

Lightning was in his eye. His step was firm,
But stealthy as a tiger's, and his limbs,
Stirr'd like the springing steel. His left hand held
The instrument of death, and on his breast
Th' insignia of his deadly trade were crossed.
Look! he has marked his victim, and his form
Stoops to a keener gaze. On—step by step!
Near—and still nearer!—It will answer now!
Slowly he raises up his sinewy form,
And stands a giant. Dreadfully minute
His deadly preparation—all is done!
A moment—a keen flash—and to the ground
Falls the unconscious—robin!—Hail! brave man.

"CAN YOU KEEP A SECRET,

"Dorothy," said Ichabod, pale and trembling, to his wife. "Dorothy, I have a secret; and if I thought you would keep it inviolable, I would not hesitate to reveal it to you; but, O Dorothy, woman."

"Why, Ichabod, it must certainly be a secret of great importance, for you are in a woful agitation. You know, husband, you can place implicit confidence in your wife.—Have I ever given you occasion to doubt my fidelity?"

"Never, never, Dorothy; but the secret I have to communicate is one that requires more than ordinary faithfulness and prudence to prevent you from divulging it. O dear! I shudder when I think on it!"

"Why, husband, do you know how your lips tremble, and your eyes roll? What is the matter?—Ichabod!—you surely cannot mistrust the confidence of one who vowed at the altar to be faithful to you. Come, unbosom yourself."

"May I rely on your fidelity?"

"Ichabod, you know you may."

"Well then,—we are both to be ruined!—undone!—I have committed murder!"

"Murder!"

"Yes, murder!—and have buried him at the foot of a tree in the orchard!

"O! awful! Ichabod.—Committed murder!—Then indeed we are ruined, and our children with us."

Ichabod left the room, and Dorothy hurried off to a neighbor's.—Mrs. Prattle observed a great change in Dorothy's countenance, and in her general appearance; so great as to cause her to inquire into the cause of it.

"Oh! Mrs. Prattle," said Dorothy, "I am the most miserable of women!—I am ruined for ever!"

"Mercy! Dorothy, how gloomy you look!—What has turned up to make you look so dejected? Why how you sigh! woman.—Tell me the cause."

"I wish I might, Mrs. Prattle; but the occasion of my unhappiness is a secret which I am now not permitted to divulge."

"O! you may tell me, Dorothy—I shall never speak of it again."

"Will you promise never to reveal it to any person living?"

"You know, Dorothy, I never tell secrets."

"Well, Mrs. Prattle——I scarcely dare say it—my husband has committed murder, and buried him at the foot of a tree in the orchard!—he told me of it himself.—For Heaven's sake don't name it to any one!"

"Murder!—your husband committed murder!—indeed, indeed, Dorothy, you have reason to think yourself ruined!—poor thing! I pity you from the bottom of my heart!"

Dorothy went home weeping and wringing her hands; and Mrs. Prattle, leaving her dough half kneaded and her infant crying in the cradle, hastened to hold a tete-a-tete with Mrs. Tellall.—Soon after this last confab was ended, the report of Ichabod's having committed murder became general, and the disclosure of the fact was traced to his wife, Dorothy. Process was immediately issued against him by a magistrate, before whom, and in the presence of a multitude of anxious spectators, he gave the following explanation:

"My object," said Ichabod, "in the course I have pursued, was to test my wife's capability of keeping a secret—I have committed murder in as much as I killed a toad, and buried it at the foot of a tree in my own orchard. How far my wife is capable of keeping a secret, has been sufficiently proved;—and with respect to the murder, those who feel an interest in it, are at liberty to inspect the body." [*Hesperus.*

SPORTING OLIO.

FOWLING PIECE.

General Observations respecting the Fowling Piece.

In the choice of a gun, I would recommend every sportsman first to consider the weight he can conveniently carry, strength being a most essential point, as well to the safety as the shooting of the barrels. After the weight of the barrels is fixed upon, I turn my attention to the bore and length, and recommend the former not to be too wide, as it has two or three bad tendencies: in the first place, if the bore be wide, and the weight limited, it must weaken the barrel. Seventeen gage (i. e. seventeen balls to a pound,) is a good size, and I think best calculated for general use. But, suppose the weight of your barrel is confined to 4 lbs. or 4½ lbs. which is a good and proper weight for 17 gage; if barrels of the same weight are made three fourths of an inch in bore, they are then not only much reduced in strength and rendered unsafe, but do not shoot so well for the want of a proper proportion of metal according to the bore, (I allude to double barrels only;) besides, a wide-bored double gun, unless made excessively heavy, such as no gentleman would wish to carry, is very unpleasant to use, as it must be loaded according to its bore, and, for want of sufficient metal, it recoils violently; when, on the contrary, barrels of a less bore, suppose 17 or 18 gage, the same weight as the wide-bored ones, will shoot well, and be perfectly safe. Strength is essential in barrels, but I do not recommend any sportsman to have too heavy a gun; that is, heavier than he can conveniently manage; for if he becomes overpowered with weight or fatigue, I think he will shoot well no more that day. If the weight is limited, the shorter your gun is, the stronger it must be; and there is no weight that a gentleman will carry, that will in the least be any improvement to the shooting of barrels above 2 feet 5 inches or 2 feet 6 inches long; and although many sportsmen will scarcely admit that a barrel 2 feet 2 inches, or 2 feet 4 inches, will kill equal to one of 2 feet 6, or 2 feet 7 inches, yet a short gun (well manufactured,) will certainly shoot equally well, or perhaps better: I agree that all short guns do not shoot as well as long ones: because there is more judgment required in making a gun under 2 feet 5 inches, to shoot properly, and few gunmakers understand the method. For my own part, I shoot with one made by Gill of Richmond, only 2 feet 2 inches in barrel, the shooting of which has surprised some of my sporting friends: it fires by percussion, and according to my own judgment, on the most simple and best principle* of any I have yet seen: it may be properly cleaned by almost any person in three or four minutes. Of the locks, I think nothing more need be said than to have them as well made as possible, as much depends on the good workmanship of a gun lock, let the principle of it be what it may; and a real good lock will be as perfect, with proper care, after twenty years' wear, as it was the first hour; while a bad one will wear out the first season, and probably cost the owner the price of a good lock in repairs. The next essential points about a gun, are the bend, length, and mounting of the stock. If the gun is in every respect a piece of superior workmanship, and shoots in a superior manner, it is of little service if it be not stocked exactly to suit the person who uses it; it is therefore not only a most material thing to have the gun stocked the exact bend and length to suit the owner, but to have it properly *laid off*, a circumstance which gunmakers in general seem not to understand, or at least to disregard, and to which the slightest attention is never paid by the Birmingham makers. Every other particular depends chiefly on the fancy of the sportsman. In conclusion, therefore, I caution the purchaser to employ such gunmakers as are in the habit of executing good work, and most particularly guns that shoot well, as there are many eminent gunmakers, who either do not understand the particular art of making guns shoot in a superior manner, or will not give themselves the trouble; the latter is equally objectionable, in my opinion, and too often applies to some of the London makers. [*Shooter's Companion.*

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* It is the copper cap plan, with the locks of a peculiar construction.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 13, 1829.

☞ This is the last number of the present volume. The index for it is in the hands of the printer. We cannot omit the occasion to offer our sincere thanks to our friends for the steadiness of their support. We have endeavoured to make the best return for it, by rendering the columns of the Farmer interesting and useful; and the accession of between 2 and 300 subscribers, coming from every state in the Union, within the last year, is a cheering proof that our efforts have not been fruitless. For the future we have no promises to make—no change of plan to announce. Our journal will be conducted as heretofore, with a *strict and exclusive* regard to the welfare of those who cultivate and rely upon the *soil* for a living; adapting a portion of each paper to the instruction and amusement of their children and of those who conduct their household economy. We can only promise that, with more assistance and multiplied means of information, the reader of the Farmer will hereafter find a more complete abstract of foreign news, especially as it affects the concerns of American husbandry; and a more perfect view of the state of the markets in our principal cities. In regard to party politics, we can say of the future, as we most conscientiously may of the past; that not one word will find admission with a view to *party* effect—for the elevation of this, or the depression of that politician. With this brief and hasty explanation, we commit this last sheet of the year's labours to the printer and the public; respectfully soliciting a continuance of support from all our patrons, and the favour of their influence to extend the circulation of the American Farmer in their neighbourhood. ☞ Any person sending $20 for four subscribers shall be entitled to a fifth paper, and so for any greater amount.

☞ It is stated by Dr. Alexander of N. Carolina, that the best substitute for the mulberry, and that on which silk worms feed freely and thrive well, is the leaves of the *snow-ball bush*. These leaves put out much earlier in spring, and resist frost better than mulberry, and may, therefore, become a highly useful substitute, especially when the worms are hatched too soon, either by accident or design. Sometimes the mulberry leaves are cut off by frost, as was the case in the southern states last spring; the snow-ball leaves not being so subject to destruction in this way, might be used till fresh mulberry leaves put out. Doctor Alexander also mentions, that the mulberry leaves, rolled up closely in woollen blankets, but not pressed, will remain fresh for several days, much longer than in any other way. He accounts for it on the principle that wool is a non-conductor of heat, and that its action in this case is the same as that on ice, which it is known it preserves in hot weather much longer than any other preservative, by preventing the ice from absorbing heat, and consequently from evaporation. This is all that is necessary in the preservation of mulberry leaves in a fresh state for several days.

☞ BALTIMORE MARKET.—The news from England which we publish to-day, has had the effect of still farther depressing the flour market—holders being now willing to sell from stores at $7.50. The wagon price is about $7.25, but what comes in is generally stored. Accounts of sales of tobacco in England ought to have the effect, if any, of improving the price of that commodity. Corn has declined five or six cents a bushel.

FOREIGN NEWS.

The packet ship Silas Richards, has arrived at New York from Liverpool, bringing dates from that port to the 24th, and from London to the 23d January. A London correspondent of the New York Commercial, has furnished the following spirited view of the state of things, commercial and political, at the latest dates.

LONDON, *January 22, 1829.*
Half past 7 o'clock.

The recal of the Marquis of Anglesea from the government of Ireland, appears to have caused great regret among the Catholic party of that country. The Marquis left Dublin on Monday last, followed by a large portion of the population; and the shops were closed as a mark of regret at his departure. It is current here that the Duke of Northumberland will succeed the Marquis in the government of the sister kingdom. Thus much is certain, that it has been offered to his Grace, whose answer has not yet been received. The sentiments of the Duke of Northumberland are understood to be moderately in favor of the Protestants; and his immense income, which is 240,000*l.* per annum, will not diminish the chance of his being popular. Daniel O'Connell, M. P. intends taking or rather attempting to take his seat on the 5th of next month, in the Commons House of Parliament, and a most curious scene may be looked for.

The weather here has set in exceeding sharp, and the glass stands at 30. The navigation of the North of Europe, where the winter has set in most rigidly, is in consequence, suspended. Money here has become very scarce, and large importations of gold have been made to the Northern Kingdom, which has led to fears that the precious metal will become scarce. Trade is exceeding dull, particularly the retail trade, and a great want of confidence exists. Our accounts from India are of such a nature as to lead to fears that, ere the present quarter is out, the Houses connected with this part of the world will suffer severely. At Bengal and Bombay, European goods were entirely without demand, and the market was glutted with all descriptions of these goods.

We have accounts this day from Constantinople to the 19th of last month. Every thing denotes the determination of the Sultan to exert all the powers of his empire, and bury himself in its ruins. The capital was defended by enormous fortifications, capable of containing 200,000 defenders. Large supplies of grain had arrived from Asia, from Barbary and from Macedonia, and the Pacha of Egypt had sent not only grain, but money to a large amount. The Pachas throughout Asia, had received orders to put in force the firman, calling all the Mahometan population, from the age of seventeen to sixty to arms. In all the mosques it had been publickly declared that the Law of the Prophet was in danger. Nearly one thousand camels had been collected in Asia, to form regular caravans for the conveyance of necessaries to the capital by which the blockade of the Dardanelles would be considered of minor importance. The greatest exertions were using to equip the Turkish fleet, with the view of breaking up the blockade, or at any risk attacking the Russian squadron. For this purpose, three ships of the line of 108 guns, had been launched, and were nearly ready, but there was great difficulty in raising seamen. Detachments of troops from all parts of Asia continued to arrive at the capital, on the 17th; the contingent furnished by Aleppo, amounting to 3000 men, reached that place. The weather had however, been so severe that neither the Grand Vizier nor Hussein Pacha had been able to use offensive operations, the roads being impassable and the cold most intense.

M Offley who has acted as Consul for the United States, at Smyrna, arrived at Constantinople on the 1st December, and two days afterwards had an audience with the Reis Effendi, by whom he was most favourably received. The object of his mission is stated to be the conclusion of the treaty of commerce between the Sultan and the Republic, the basis of which had been laid in several conferences between the commander of the American squadron and the Grand Admiral. The Pacha of Egypt is said to have counselled the Sultan to grant such concessions as would bring the treaty to maturity. Hussein Bey who stood so high in the favour of the Sultan, and was one of the great advocates for war had died; but no change of measures was expected to result from this. The fortress of Demotria upon the Hebre had been completely fortified. The Pacha of Negropont had sent several heads to the Sublime Porte, and boasted of having obtained great advantages over the Greeks in Livadia. The Sultan had received information of the approaching evacuation of the Morea by the French. Intelligence had also reached him, through the medium of his spies, that General Geismar's corps before Widdin had been very considerably reinforced, and that the Russians had arranged a new plan of operations for the next campaign. This was to be effected by turning the Turkish fortresses on the Danube, and the defiles of the Balkan, and penetrating into the interior by way of Servia. The plan originated with General Diebetsch--but as it would turn the war so near the Austrian frontier, and endanger perhaps the tranquility of Transylvania, and was most certain to create the jealousy of the Austrian Court, it was doubtful whether it would be carried into operation. The Sultan had, however, made preparations for this change in tactics, Sophia was strongly fortifying, and Thrace would be guarded by a phalanx of fortresses. An entrenched camp would also be established in the vicinity of Sophia, which was to consist of 50,000 men, chiefly cavalry. Great magazines would be established at Philopopoli, and Gallipoli was to be the grand entrepot of Thrace. The foundery of Thopana was in full activity, and large quantities of cannon were casting. Russian prisoners, both officers and privates, continued to arrive at Constantinople; they appear to be well treated. All the Turkish garrisons in the frontier fortresses had been largely increased, and it was supposed that in the month of February the Turkish armed force would amount to 250,000 men. The rigor of the season had much diminished the plague in Wallachia. The St. Petersburgh accounts say that all the disposable forces of the capital were to be marched to the seat of war, and the garrison of St. Petersburgh would consist of 10,000 Poles. It was not, however, intended that any of the army of Poland should take an active part in the approaching campaign. All these accounts serve to show that the approaching struggle for empire will be worthy of the prize; and, that the setting of the sun of Moslemism, if it does set, will not be less sanguinary than its rise.

We learn from Lisbon, that Don Miguel was still suffering severely from his accident. Great dissension is said to exist there between the troops of the line and the volunteers, and many of the latter had been found assassinated.

The following is the return of the Corn averages and rates of duty as made up this day:—

Imperial weekly average—Wheat, 74s 10d; Barley, 36s. 6d; Oats, 24s. 4d; Rye, 41s. 6d; Beans, 36s. 11d; Peas, 38s.

Aggregate average of the six weeks which regulates duty—Wheat, 74s. 11d; Barley, 36s. 11d; Oats, 24s. 7d; Rye, 45s. 6d; Beans, 38s. 4d; Peas, 39s. 9d.

Duty on foreign Corn—Wheat, 1s.; Barley, 7s, 10d; Oats, 10s. 9d; Rye, 3s. 6d; Beans, 12s. 6d; Peas, 11s.

Prices of Stocks.—Consols. 86¼ a 3-8; do per Account, 86¼ a 3-8; Reduced, 87 1-8; 3½ do. 96¼; 4 per Cent, 1015 8, a ¾; 4 per Cent, 1826, 105½ a ¾.

From the London New Price Current, of Jan. 20.

London Markets.

Tobacco.—At a late meeting of the trade it was proposed to advance the prices of Tobacco 2d per lb. it was ultimately agreed that a rise of 1d per lb. should immediately take place. The purchases of Tobacco last week for export were about 200 hhds. Virginia and Kentucky at 3½ a 4d per lb. and inconsiderable parcels to the trade at full prices; the market continues very firm.

Cotton.--The Cotton Market is rather heavy, and the public sales of Friday went off ½d under the previous prices; they consisted of 2,030 bags Surats, chiefly ord. to mid. which sold 3 3-8d a 4 1-8d. The purchases by private contract for the week ending last night, consists of 300 Surats at 3¼d a 4 1-8d, 200 ditto at 3 5-8d a 4d; 60 Pernams at 7½d; 120 Bowed at 6d.

Rice.---There is no alteration in the prices of Rice. The Market is rather heavy.

Liverpool Markets.

Liverpool, Jan. 17.

The sales of cotton this week amount to only about 8500 bags, and prices are rather lower. Upland 5 5-8 to 6¾. Import of the week 12,451 bags. There has been little doing in grain.

Jan. 24.—The Cotton market has been miserably depressed and languid during the week, and the sales of all descriptions from the 17th inst. to last evening inclusive reach only 6820 bales, including 50 Sea Islands at 12 a 14d; 2710 Upland, 5¼ a 6½; 740 Orleans, 6 a 8--10 a 8¼; 440 Alabama 5½ a 8. At public auction, 310 S. Islands 12 a 14½; Stained, 4 3-8 a 8¾; 110 Uplands, 5 3-8 a 6 1-4; 290 Alabama, 5, 5 3-8.

The complexion of the market is gloomy and prices have declined fully 1-3d per lb. in common qualities of American the reduction is even greater and they must be considered in most instances one fourth per lb. lower. Even at this decline sales to any extent cannot be made and consumers appear determined to keep back as long as practicable. The depression is increased by a severe frost having, for the present, closed the water navigation between this and the neighboring towns; the turn out of the hands employed in the mills at Stockport, joined to the suspension of many others at Manchester owing to a difference between the masters and workmen in relation to wages.

The public sale of Sea Islands yesterday, was thinly attended and went off heavily—a reduction of fully one per cent per lb. on the prices realised at the last public sale, on the 5th ult. was submitted to, and somewhat lower rates than those current by private since that date.

The Corn market has been heavy during the week and Wheat is 1s a 2s per qr. lower. American flour is little enquired for. Tobacco there is no alteration to notice as regards prices and but little done.

Average of Wheat, &c. for the week 74s 10; for the six weeks 74s 11; duty 1s.

Jan. 24.—We have a continuance of dulness in the Corn market, and the transactions are very limited.—Wheat is 3d per 70 lb. lower, and good foreign imports are now offering at 9d per bushel reduction from the highest point. This week's duty for wheat is 1s and that for the succeeding week will be the same.—Flour 7½d, and Indian Corn 7s 10d per quarter.

Prices Current in Boston, March 6.

Apples, best, bbl. $3.00 a 3.75. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 7.50 a 8.00. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .75 a .80; Barley .67; Oats .37 a .40. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.25; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, per bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 4 00; Rye Grass 4.00; Tall Meadow Oats Grass 4.00; Red Top 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .9; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .42; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 *a* .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. .30 a .33.

Prices Current in New York, March 7.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland .8¾ a .10; Alabama .9½ a 10¾. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce $11.00; clean 12.00. *Flour*, N. York, 8.00 a 8.12½; Canal 8.00 a 8.37½; Baltimore wharf, 8.00; Howard street 8.25; Richmond city mills 8.00; country 7.87½; Alexandria and Fredericksburg 7.75 a 7.87½; Petersburg 7.75 a 7.87½. Rye Flour 4.00; Indian Meal, per bbl. 2.88 a 3.00; per hhd. 15.00. *Grain*, Wheat, North River ——; Virginia 1.62 a 1.64; North Carolina 1.64; Rye .70 a .72; Corn, Northern .54 a .56; Southern .44; Barley .56; Oats .40 a .46; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .6 a .6½; Pork, mess 11.75 a 12.50; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .9 a .10. *Rice* .3¼ a .3 5-8; Whiskey, rye .24½ a .25½; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky .3¼ a .6½; Ohio .5 a .12½; *Wool*, Merino, American fleece .32 a .38; Pulled, 1st qual. .32 a .35; 2d qual. .25 a .27; 3d qual. .20 a .23; Lambs, 1st qual. .40 a .42.

Prices Current in Philadelphia, March 10.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .9, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .11, Tennessee .9 a .11, Alabama .9 a 11; *Feathers*, Southern .33 a .34, Western .31 a .32; *Flax* .8 a .8½; *Flour*, super 8.00, fine 7.50, Rye 3.75; Corn meal, hhds. 14, bls. 2.75; *Flaxseed*, cask 11.25, bushel 1.50; *Grain*, Wheat 1.50 a 1.60, Rye .60 a .70, Corn l. c. white .45 a .47, l. c. yellow .46 a .49, u. c. round .52 a .54, Oats .25 a .33, Barley, Pa. .45 a .50 Eastern .55; black eyed Peas .40 a .50; *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western ——; *Hemp*, Kentucky ——; *Lard*, .7 a .8½; *Oil*, linseed .88; *Pork*, mess 13 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.50 a 3.75; *Tobacco*, Kentucky .3 a .6, Virginia .3½ a .5; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

WHITE MULBERRY TREES.

For sale, several thousand White Mulberry Trees, two and three years old, by J. Terhoven, on the Point road, four and half miles from Philadelphia, near the village of Richmond.

Letters, *post paid*, sent to the Kensington Post Office, Philadelphia county, will be attended to. The price of the trees is from 14 to 20 dollars per thousand.

February 13.

LITERARY EMPORIUM.

WM. A. COLMAN has removed his store to *Park Place House*, (formerly "Mechanic Hall,") New York, and there has opened what is called the *Literary Emporium;* in which may be found for sale a fine collection of *Agricultural Works*, embracing *Loudon's Works, &c.* on that subject, as well as a choice collection of *Sporting, Amusing*, and *Classical Works*—besides an Exhibition of Paintings, and the most splendid collection of *Books*, of *Prints*, as well as the *modern fine Engravings*, amongst which will be found the great Race Horses, winners at the St. Leger course, and Duroc and Eclipse, the great American horses.

N. B. Libraries furnished, and orders received, accompanied by the cash, for any *Books, Reviews*, or *Newspapers* published in England.

Feb. 13.

ALMANAC.

1829. MARCH.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 14	6	8	5	52	11	44	2	27
Sunday,........ 15	6	7	5	53	11	46	3	9
Monday,....... 16	6	5	5	55	11	50	3	46
Tuesday,...... 17	6	4	5	56	11	52	4	20
Wednesday,.. 18	6	3	5	57	11	54	4	53
Thursday,..... 19	6	2	5	58	11	56	5	23
Friday,......... 20	6	0	6	0	12	0	rises.	

Full Moon, 20th, 8 h. 44 m. Mg.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

No. 4, Bowly's wharf.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—best white wheat family, $9.00—superfine Howard street, (sales,) 7.75; city mills, 7.50 *a* 7.75; Susquehanna none—Corn Meal, bbl. 2.75—Grain, best red wheat, 1.60 *a* 1.70—best white do. 1.80 *a* 1.90—ord. to good, 1.50 *a* 1.70—Corn, .42 *a* .44—Rye, .50 *a* .55—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.25 *a* 5.00—Timothy, 1.50 *a* 1.75—Orchard Grass 2.25 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—Barley, .55 *a* 60—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½; No. 2, 2.62—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5.50—Feathers, .32—Plaster Paris, cargo price pr ton, 3.62½ *a* 4.25—ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing.—Apples, bush. 2.50 *a* 3.00; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½ *a* 1.25; Butter, lb. .25 *a* 37½; Eggs, .18¾; Potatoes, Irish, bush. .50; Fowls, per dozen, 3.75 *a* 4.00; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Terrapins, 4.00 *a* 4.50 per doz. Pork, 5.50 *a* 6.00 cwt.; prime Beef, on the hoof, 5.50 *a* 6.00.

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